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ABSTRACT

In 1995 the Metropolitan Educational Research Consortium (MERC), Richmond (Virginia) commissioned a study of alternative high school scheduling modules to determine the effects of different schedules on teaching strategies, teacher and student satisfaction, and student and school performance. This report presents the results of an analysis of a survey administered to teachers in 1995. Six types of traditional and block schedules were studied through the responses of teachers from three inner city, five suburban, and four rural schools. Findings indicate that teachers in everyday short block schedules use significantly more whole class instruction than teachers in everyday semester and alternating long block schedules. Teachers in alternating and everyday semester long block schedules practice significantly more in a team approach than teachers in everyday short block schedules. Teachers in everyday long block schedules are significantly more satisfied with student achievement as reflected in their grades than are teachers in alternating long block and everyday short block schools. Teachers in everyday semester block schools report more than teachers in alternating and everyday short block schedules that attendance is significantly better than three years earlier. Teachers in everyday semester block schools and the alternating day with a study block schedule rated their schedules higher than other alternating block schedules, but the everyday semester block schedules received the most favorable rating by its teachers. Seven appendixes contain additional findings in areas such as ability to cover the curriculum and use of particular teaching methods. (Contains 7 tables, 12 references, and the teacher's survey.) (SLD)

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ED 411 335

ALTERNATIVE HIGH SCHOOL SCHEDULING

A View From The Teacher's Desk

Research Report

METROPOLITAN EDUCATIONAL RESEARCH CONSORTIUM

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ALTERNATIVE HIGH SCHOOL SCHEDULING
A View From The Teacher's Desk
Research Report

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January 1997

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Executive Summary

Alternative High School Scheduling
A View from the Teacher's Desk

In 1995, the Metropolitan Educational Research Consortium (MERC) commissioned a study of alternative high school scheduling models to determine the effects of different high school schedules on teaching strategies, teacher and student satisfaction, and student and school performance. Specifically, it was hypothesized that block schedules would (1) improve teacher classroom and work behavior, (2) improve the working conditions for teachers and students, and (3) improve student and school outcomes.

This briefing paper presents our first report of the data. It presents the results of the analysis of the survey administered to teachers in the Spring of 1995. The paper presents a complete list of findings from this analyses in its appendices. This paper will also be followed by a second report in the Fall of 1996 which will present our analysis of the student responses and tangible student performance data. Once the these findings are discussed by our study group panels, a final report emanating from this research will focus on the teacher, student, and administrator issues which should be considered prior to adoption of a new high school schedule.

This paper's findings can be used to determine if block scheduling is accomplishing two of its three main intentions: (1) fostering teacher classroom and work behaviors which foster greater student involvement, and (2) creating better working conditions for students and teachers. The paper also lends itself to beginning a discussion regarding block scheduling's third intention of not lowering standards. Our second and third report will more directly address that purpose.

This analysis compared and contrasted the way teachers and students answered twenty eight questions concerning their perceptions and behaviors regarding teacher classroom behavior, work behavior, and working conditions. Its findings four major effects of lengthening the amount of classroom time and established levels of teacher satisfaction with the scheduling options. For example,

1. teachers in everyday short block schedules use significantly more whole class instruction than teachers in everyday semester and alternating long block schedules,
2. teachers in alternating and everyday semester long block schedules practice significantly more in a team approach to teaching than teachers in an everyday short block schedules,
3. teachers in everyday semester long block schools are significantly more satisfied with student achievement as reflected in their grades than teachers in alternating long block and everyday short block schools, and
4. teachers in everyday semester block schools report that attendance is significantly better than three years ago than teachers in alternating block and everyday short block schedules.
5. teachers in everyday semester block schools and the alternating day schedule with a study block rated their schedules higher than other alternating block schedules. The least like schedule by teachers is the alternating block schedule which uses one day a week to meet all of the eight classes on one day. However, in a comparison of teacher responses as to the retention of the schedule, the everyday semester block schedule received the most favorable rating by its teachers.

The second section of the report conducted similar analyses regarding student behavior and performance. The final section displays the attributes of alternative schedules as discovered in this study. The appendices contain additional findings for teacher classroom behavior in such areas as teacher ability to cover the curriculum, use of small group instruction, and whole class lecture, use of instructional materials, and student assessment.

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TABLE OF CONTENTS

Background i

Purpose of Block Scheduling 4

Schedules Studied 6

Methodology 7

Variables Studied 9

Findings 10

Appendices

A Methodology

B Summary of Findings

C Summary of Focus Group Interviews

D Tables: Impact of Structural Variables on the Dependent Variables

E Tables: Impact of Subject Area on the Dependent Variables

F Correlations of the Teacher and Student Responses

G Teacher Survey Instrument

Alternative High School Scheduling
A View from the Teacher's Desk

In 1995, the Metropolitan Educational Research Consortium (MERC) commissioned a study of alternative high school scheduling models to determine the effects of different high school schedules on teaching strategies, teacher and student satisfaction, and student and school performance. Specifically, it was hypothesized that block schedules would (1) improve teacher classroom and work behavior, (2) improve the working conditions for teachers and students, and (3) improve student and school outcomes. This paper presents the first report of the data. It presents the results of the analysis of the survey administered to teachers, students and administrators in the Spring of 1995. The paper also presents a complete list of findings from these analyses in the appendices to this document. This paper will also be followed by a second report in the Fall of 1996 which will focus on the analysis present our analysis of the actual student performance data.

A Brief History of High School Scheduling

The schedule is a structural component high school schools use to organize curriculum, and its delivery, and control student interactions. In a sense it is a time management tool which enables educational programs to be realized, restrained, or restricted. Depending on its flexibility, the schedule becomes a straight jacket which constrains innovation or a force which propels it. This important tool has a long history.

In 1910, the Carnegie Foundation proposed 120 hours in one subject as a standard time unit to measure the worth of a high school credit. They called this time measure of academic progress the "Carnegie Unit." It became the structural component on which schools organized the curriculum and its delivery and led to the every-day schedules where classes meet 4 or 5 times a week, for 40 to 60 minutes, for 36 to 40 weeks each year.

Many observers, (Carroll, 1989; Kosanovic, 1994; Norwest Regional Laboratory, 1990) believe the traditional every-day single period schedules centered around the Carnegie standard restricts teaching strategies, flexible grouping, individualized instruction, and independent study, have outlived their usefulness (see review of literature by Westfall & Pisapia, 1995).

Over the years, several attempts have been made to move away from the every-day Carnegie based schedules. In the late 1960's and early 1970's, "flexible modular" schedules sought to replace lock step schedules with class periods of varying lengths of time. Initially, these schedules were seen as improvements by teachers and students over the every-day lock step schedules. Yet, varying the length of modules and the unscheduled time feature in these schedules, to provide opportunities to vary teaching methods and individualize instruction, created an unintended consequence of (1) teacher difficulty with tailoring their teaching practices, and (2) increased incidences of student discipline led to their demise.

In 1984, The National Commission on Excellence in Education through its report, The Nation at Risk, recommended that the school year be lengthened, graduations requirements be raised, and new required and elective courses such as foreign languages and technology be added to the curriculum. They also noted that to accomplish these goals it would be necessary to study and adjust how time was used and accounted for in America's schools. The response was to call for increases in the length of the school day and the length of the school year to accommodate these recommendations. Opponents, citing that schools only use 60% of the school day for instruction, argued that schools should use the time available more efficiently.

Some reformers attempted to make schools more efficient and effective by imposing new structural components in the form of additional graduation requirements and changing the way curricula is ordered and delivered. The restructuring advocates focused on various strategies (outcome-based teaching, alternative assessment, interdisciplinary teaching, block scheduling, site-based management, essential schools, Paideia seminars, cooperative learning, and technology infusion) singularly and simultaneously (Cawelti, 1994, p. 23).

As these proposals were confronted with school organizational constraints emanating from traditional school schedules and governing bodies, strategies such as "block scheduling" and "site-based management" were offered to facilitate the reforms being offered. From 1988 to the present, block scheduling, which organizes at least part of the daily school schedule into blocks of time larger than 60 minutes to allow flexibility for varied instructional activities, was seen as a centerpiece of high school restructuring efforts that were sweeping the country in the wake of ten years of an American focus on education.

The restructuring advocates probably agreed with the National Education Commission on Time and Learning's (1994) conclusion that "learning in America is a prisoner of time." The Commission continued,

> For the past 150 years, American public schools have held time constant and let learning vary. The rule, only rarely voiced, is simple: learn what you can in the time we make available. It should surprise no one that some bright, hard-working students do reasonably well. Everyone--from the typical student to the dropout --runs into trouble. Time is learning's warden (p. 71).

This prestigious Commission recommended that:

- The academic day should be nearly doubled.
- Schools should be reinvented around learning, not time.
- State and local school boards should work with schools to redesign education so that time becomes a factor supporting learning, not a boundary marking its limits.
- Schools should provide additional academic time by reclaiming the school day for academic instruction.
- Teachers should be provided with the professional time and opportunities they need to do their jobs well (Sommerfield, 1994).

The purpose of block scheduling. The purpose of block scheduling in this effort to restructure educational delivery of services is to provide the time and environment to implement strategies to improve educational delivery and student and school performance. Canady and Rettig propose that block schedules focus on student control, and a less stressful work environment (1995, p. 12). For example, they claim that block scheduling is designed to:

- reduce class changes, duplication and inefficiency, number of students teachers prepare for and interact with each day or term, number of daily classes, assignments, tests confronting students, and fragmentation of teaching.
- provide time for active teaching strategies and greater student involvement without lowering standards.

From the advocates point of view, block scheduling should be seen as the facilitator of strategies aimed at improving educational productivity, not its cause. They propose that block scheduling should be seen as successful if it accomplishes three main intentions:

- fosters teachers classroom and work behaviors which foster greater student involvement in the learning process,
- creates better working conditions for students and teachers, and
- does not lower standards.

Other voices, while fundamentally accepting the advocates purposes, seek evidence that changes in school structures and processes lead to greater productivity. As Carroll, 1994 said, "the key question is whether a new program is improving education, based on measures that the profession and the public will accept as "solid". On the other hand, the block scheduling advocates, assume that if changes are made in the structure which allow new strategies to be implemented school and student achievement will improve. While research on these claims are scarce, what is available indicates that "in general, teachers and students like longer classes, and that students do at least as well on measures of academic achievement." (O'Neil, 1995).

Schedules Studied. There are many block schedule structures that can be utilized, but most are mutations of two basic models: the alternating day block schedule, and the semester block schedule (commonly known as the 4X4 schedule). Table 1 displays four general ways of constructing the high school schedule which were used in this study.

Table 1
The Characteristics of Schedules used in this Study

Schedule	Schedule Type	Schools Studied #	Characteristics
EVERY DAY SHORT BLOCK	Traditional Six Period Day	1	Every-day 6 period schedule, meets 5 times a week, 50-60 minutes daily, and 36 to 40 weeks each year. Teachers teach 5 classes daily of approximately 25 students for full year.
	Seven Period Day	2	Every-day 7 period schedule meets 5 times a week, 40-51 minutes daily, and 36 to 40 weeks each year. Teachers teach 5 classes daily of approximately 25 students for full year.
ALTERNATING DAY LONG BLOCK	Alternating Block #1	3	Alternating day 7 period schedule. meets 88-104 minutes daily, and 36-40 weeks per year. Three classes meet on alternating days 2-3 times per week, and one (45 minute) class meets daily for a full year. Teachers teach 3 classes daily of approximately 25 students for full year.
	Alternating Block #2	1	Alternating day 7 period schedule, meets 90 minutes daily, 36-40 weeks per year. Four classes meet on alternating days 2-3 times per week. One block is used as a study block. Teachers teach 3 classes daily of approximately 25 students for full year.
	Alternating Block #3	2	Alternating day 7 period schedule, meets 88-90 minutes daily, 36-40 weeks per year. Four classes meet in block on alternating days 2 times per week. On Friday's each of the classes meet for 40 minute periods. Teachers teach 3 classes daily on block days of approximately 25 students for full year.
EVERY DAY LONG BLOCK	Semester Block	3	Every-day schedule, 4 classes meets 85-90 minutes daily, 18-20 weeks per year. A second set of 4 classes meet daily for the second semester. Teachers teach 3 classes daily of approximately 25 students each semester.

Table 2, presents the demographic information regarding each school. One six period day school, two seven period day schools, three Alternating Block type 1 school, one Alternating Block type 2 schools, two Alternating type 3 schools, and three schools using semester block schedule were chosen for this study. Of the twelve schools which participated, three schools were classified as inner city schools, five schools were classified as suburban schools and four schools were classified as rural schools.

Table 2
DEMOGRAPHIC INFORMATION FOR SCHOOLS PARTICIPATING IN THE STUDY

Type of Schedule	6P	7P1	7P2	AB11	AB12	AB13	AB21	AB31	AB32	SB1	SB2	SB3
Year Initiated	1980	1985	1994	1991	1994	1992	1991	1992	1992	1994	1994	1991
ENROLLMENT	1136	1183	639	1294	1711	1437	1186	663	747	1650	1518	1627
% MINORITY	8%	65%	52%	5%	21%	9%	10%	98%	65%	16%	22%	7%
%ADVANCED DIPLOMA	74%	51%	51%	59%	51%	74%	61%	35%	48%	64%	61%	41%
Block minutes	51	47	47	104	88	88	90	90	90	85	85	90
Type	S	U	R	R	R	S	S	U	U	S	S	R
Teacher Return Rate	89%	82%	85%	62%	76%	87%	87%	72%	81%	78%	87%	85%

S=Suburban, R=Rural, U=Urban

Methodology

The study used a non-experimental, correlational approach with a pre and post component on some factors. The study does not meet the randomization, manipulation of treatment, and use of a control group requirements of an experimental design which would lead to inferences to a true cause and effect relationship. A summary of the methodology is portrayed in Table 3.

TABLE 3
Summary of Methodology
The Research Questions, Data Sources and Analytic Technique used in this Study

Research Question		Data Sources	Analytic Technique
PHASE ONE	*What effect does the schedule have on teacher classroom behavior?* *What effect does the schedule have on teacher work behavior?* *What effect does the schedule have on teacher working conditions?* *What effect does the schedule have on student working conditions?* *What effect does the schedule have on student behavior?* *What effect does the schedule have on student performance?* *How satisfied are teachers with their schedules?* *How satisfied are students with their schedules?*	Two sources of information were used to collect the data to answer the research questions in phase one. MERC survey instruments were designed to collect data on the perceptions of students, parents, teachers and administrators at the six schools. On-site visits and administrator interviews were conducted at twelve schools. At six of the schools, focus group interviews with teachers, students and parents were conducted.	The perceived effect of the schedule was determined by comparing teacher and student responses to survey questions related to teacher behavior, teacher and student satisfaction, and student performance. These analyses were supported by on-site observation and interviews to develop a wider understanding of the perceived effects of the schedule. An analysis of variance (ANOVA) was used to highlight any statistically significant differences in productivity among schedules. The standard of p=.05 and Eta=.05 was set to determine statistically significant findings.
PHASE TWO	*What effect does the schedule have on actual student performance?* *What effect does the schedule have on school processes?* *What conclusions can be drawn from the survey, interview, and statistical data?* *What recommendations can be offered to school districts seeking to implement block schedules?*	Statistical data from the school division and school data bases providing school and student performance information was reviewed and analyzed.	In phase two, the effect of schedule was determined by comparing actual school and student performance during the term of the schedule implementation to determine if performance is increasing over time. In this phase, the stability of the performance measures were examined to determine whether student and school performance increased or decreased after the adoption of the schedule. To do this the mean pre schedule performance levels were compared with the mean post schedule levels. Analysis of variance and Wilcoxon Signed-Ranks Test were used to determine if performance significantly increased.

Variables Studied. The impact of the schedule employed at the school on three dependent variables: Teacher Behavior, Student Performance, and Student and Teacher Satisfaction was studied. The independent and dependent variables are displayed in Table 4 .

TABLE 4
The Independent and Dependent Variables used in the Study

	Independent Variables			
Dependent Variables	**The Structural Context**	**The Social Context**	**The Support Context**	**The Learning Context**
TEACHER BEHAVIOR **Classroom Behavior** curriculum, instructional delivery, instructional materials, instructional assessment **Work Behavior** team approaches to teaching, integrating curriculum, forming support and discussion groups. **Student Performance** Perceptions of student achievement, Scores on standardized tests (TAP, SAT, AP). **Student Behavior** Perceptions of student attendance and discipline, Rates of student attendance and suspensions. **Satisfaction** Preference for the current schedule	**Schedule Characteristics** such as (1) type of schedule, (2) purpose of choosing the schedule, (3) number of years on the schedule, and (4) number of minutes in a teaching block.	**Teacher characteristics** such as (1) gender, (2) race, (3) age, (4) education level, (5) teaching experience, (6) school experience, (7) attitude towards school, and (8) satisfaction with the schedule.[1] **School characteristics** such as (1) number of students graduating with the advanced diploma, and (2) number of minority students.	**Teacher work behavior such as** (1) taking a team approach to teaching, (2) forming informal support and discussion groups, and (3) integrating instruction. **Administrative behaviors** such as (1) providing helpful workshops, and (2) level of involvement in decision making. **Working conditions** such as (1) planning time, (2) number of preparations, (3) periods per day, (4) periods per week, and (5) class size.	**Teacher methods** such as (1) use of technology in planning and preparation, (3) use of rubrics or specific criteria to evaluate student performance, and (4) changes in teaching methods **Teacher subject area** such as (1) academic core classes (English, mathematics, science, social studies, foreign language), (2) performing arts classes (Band, chorus, drama, art), (3) practical arts classes, (4) vocational education classes (business, computer education), and (5) special education

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FINDINGS

The analysis of the results produced five major findings. Four of the findings remained significant when the data was aggregated into major schedule types (i.e. everyday short block, everyday semester long block, and alternative day long block schedules. These findings are reported in Table 5. The fifth finding was significant when individual schedule types were contrasted i.e. six period, seven period, variations of alternative block, and semester block schedules. The supportive data for this finding are found in the report's appendices.

- Teachers in everyday short block schedules use significantly more whole class instruction than teachers in everyday semester and alternating long block schedules.
- Teachers in alternating and everyday semester long block schedules practice significantly more in a team approach to teaching than teachers in an everyday short block schedules.
- Teachers in everyday semester long block schools are significantly more satisfied with student achievement as reflected in their grades than teachers in alternating long block and everyday short block schools.
- Teachers in everyday semester block schools report that attendance is significantly better than three years ago than teachers in alternating block and everyday short block schedules.

These results are displayed in Table 5, the major effects of alternative high school schedules.

TABLE 5
THE EFFECTS OF ALTERNATIVE HIGH SCHOOL SCHEDULES

			EVERYDAY SHORT BLOCK			ALTERNATIVE LONG BLOCK			EVERYDAY SEMESTER BLOCK		
FINDING	*p*	*Eta*	*M*	*SD*	*N*	*MN*	*SD*	*N*	*M*	*SD*	*N*
WHOLE CLASS INSTRUCTION	.00	.05	3.28	.85	160	2.80	.89	328	2.80	.96	237
TEAM APPROACH	.00	.06	2.30	.96	155	2.81	.91	321	2.65	.91	218
ACHIEVEMENT	.00	.06	.49	.10	158	.36	.10	330	.87	.74	228
ATTENDANCE	.00	.13	.01	1.05	141	-.24	1.05	295	.66	.99	211

Significance level = $p<.05$, and Eta>.05

- Teachers in everyday semester block schools and the alternating day schedule with a study block rated their schedules higher than other alternating block schedules. The least liked schedule by teachers is the alternating block schedule which uses one day a week to meet all of the eight classes on one day. However, in a comparison of teacher responses as to the retention of the schedule, the everyday semester block schedule received the most favorable rating by its teachers.

A summary of the major findings regarding whole class instruction, taking a team approach to teaching, student attendance, student achievement as reflected in grades, and satisfaction levels with the various schedules are further displayed in Table 6.

Table 6
Summary of Major Findings

What effect does the schedule have on teacher classroom behavior? ***Whole Class Instruction***	Teachers, when compared with their counterparts working in other schedules, reported significantly different levels of use of whole class instruction. For example, the schedule (Eta=.07), block minutes (Eta=.07), and teacher subject area (Eta=.08) are reliable predictors of the use of whole class instruction. ♦ The longer the block the less use of whole class instruction occurs (Eta=.05). Whole class instruction occurs significantly more often in everyday short block schedules (m=3.28), than alternating long block schedules, (m=2.80), and semester block schedules (m=2.80). ♦ In the long block schedules, the semester block teachers and those teaching in a 104 minute block report the lowest use of whole class instruction. Teachers in the alternating block which utilizes a study block report more use of whole class instruction than teachers in other long block schedules. ♦ Teacher subject area significantly influences teacher use of whole class instruction (Eta .08). Teacher subject area remains significant, even after controlling for structural variables of minutes and years. When the structural covariates were controlled at the same time, they were significant (ETA .05), but the effect of subject area was still higher (ETA .08). In particular, English, math teachers and social studies teachers in long block schedules use significantly less whole class instruction than their counterparts in short block schedules. In particular, the math teachers in semester block schools use significantly less whole class instruction than teachers in schools utilizing other schedule types. ♦ Comparatively, students were significantly more likely to report that their teachers use whole class instruction more often than teachers report its usage.

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Table 6
Summary of Major Findings

What effect does the schedule have on teacher work behavior? ***Team Approach to Teaching***	Teachers, when compared with their counterparts working in other schedules, reported significantly different levels of taking a team approach to teaching. For example, the schedule (Eta=.05), block minutes (Eta=.05), and teacher subject area (Eta=.05) are reliable predictors of teachers taking a team approach to teaching. ♦ A team approach to teaching occurs more often in schools employing long block schedules than short block schedules (Eta=.05). A team approach to teaching occurs significantly more often in alternating long block schedules, (m=2.81), and semester block schedules (m=2.65), than everyday short block schedules (m=2.30). ♦ There were no significant differences in teacher integration of instruction across subject areas in the different schedules. ♦ In particular, science teachers in long block schedules report more use of informal support discussion groups to exchange ideas and resources, and more use of taking a team approach to teaching than science teachers in short block schedules. Additionally, science teachers in the alternating block utilizing a study block use more informal support and discussion groups than their counterparts in other long block schedules. They, however, they less often take a team approach to teaching than their counterparts in other long block schedules.
What effect does the schedule have on student performance? ***GRADES***	Teachers, when compared with their counterparts working in other schedules, reported significantly different levels of satisfaction with student achievement as reflected in the grades of their students. For example, the schedule (Eta=.09), and teacher subject area (Eta=.07) are reliable predictors of teacher satisfaction with achievement as reflected in the grades of their students. ♦ Teachers in semester block schools (m=.87; Eta=.06) report that student achievement as reflected in grades is significantly better than schools employing alternating long block schedules, (m=.36), and everyday short block schedules (m=.49). There are exceptions to this finding. For example, ♦ English teachers in alternating block schools utilizing a study block are significantly more satisfied with student achievement as reflected in grades than English teachers in everyday short block schedules, and other alternating block schedules. Their level of satisfaction (m=.70) was similar to the level of English teachers in semester block schools (m=.50). ♦ Math teachers in a sixth period schedule (m=1.00) were more satisfied than math teachers in alternating block schedules. Their level of satisfaction was similar to the level of math teachers in semester block schedules (.85). ♦ Social studies teachers in semester block schools (m=1.12) and everyday short block schools were more satisfied than social studies teachers in alternating block schools. ♦ Vocational teachers in semester block schools (m=1.19) and six period day schedules were more satisfied than vocational teachers in alternating block schools. Subject area also significantly influences (1) whether teachers are satisfied that their students are gaining an in-depth understanding of the subject matter (p=.00, Eta=.06), and (2) whether teachers believe that their students are learning as much as they should be this academic year (p=.00, Eta=.07). Schedule significantly effects student satisfaction with their achievement as reflected in their grades (when controlling for structural variables (p=.00, Eta=.05)

Table 6
Summary of Major Findings

What effect does the schedule have on student behavior? ***ATTENDANCE***	Teachers, when compared with their counterparts working in other schedules, reported significantly different levels of satisfaction with attendance in their classes than three years ago. For example, the schedule (Eta=.16), block minutes (Eta=.08), and teacher subject area (Eta=.16) are reliable predictors of teacher satisfaction with attendance in their classes this year as compared to three years ago. ♦ Teachers in semester block schools (m=.66; Eta=.13) report that attendance is significantly better than schools employing alternating long block schedules, (m=-.24), and everyday short block schedules (m=.01). ♦ Teachers in 104 minute schedules are the least satisfied (-.67) that attendance in their classes has improved in the last three years.
How satisfied are teachers with their schedules? ***SATISFACTION***	Teachers, when compared with their counterparts working in other schedules, reported significantly different levels of satisfaction with the schedules in which they work. For example, the schedule (Eta=.05), and teacher subject area (Eta=.05) are reliable predictors of teacher satisfaction with their current scheduling pattern. ♦ In general, teachers in all the schedules studied agree that they like the current daily schedule of classes. However, there are significant differences in the strength of their agreement. For example, teachers in semester block schools (m=2.65) strongly agree that they like the current schedule, while teachers in the alternating block schedule utilizing the one day a week in which all classes meet were the less satisfied (m=.28). Of the three types of alternating block schedules, teachers in the alternating block with a study block rated their schedule higher than other alternating block schedules. ♦ Some differences were found in teacher responses by subject area. For instance; English teachers (Eta=.12) were more satisfied with everyday schedules using shorter blocks and the alternating schedule with a study block than other schedules. The alternating block schedule utilizing one day per week where all classes meet was the least satisfactory of the schedules. Math teachers (Eta=.24) were more satisfied with semester block schedules (m=1.38) and the alternating schedule with a study block (1.27) than other schedules. The alternating block schedule utilizing one day per week where all classes meet was the least satisfactory of the schedules. Foreign language teachers (Eta=.32) were more satisfied with everyday schedules. They liked six period day (m=.1.50), seven period day (m=1.25) and semester block schedules (m=.71) more than alternating block schedules of any type. The least preferred the alternating block with a study block. Art teachers (Eta=.76) were least satisfied with the six period day schedule (m=-2.00) and the most satisfied with alternating block schedules. Band, orchestra and chorus teachers were most satisfied with the seven period schedule and least satisfied with the six period (m=-1.00) and semester block schedules (-.25). Home economics and industrial arts teachers were most satisfied with the semester block schedule (m=1.86) and least satisfied with the everyday short block schedules (m=-.33). Vocational education teachers were most satisfied with the semester block (m=1.55) and six period day (m=1.67) schedules and least satisfied with the alternating block schedules. Special education teachers were most satisfied with semester block (m=1.34), and alternating block schedules with a study block (m=1.33) and without a study block (m=1.20). The least preferred schedules with short time blocks such as the six period day (m=-.40).

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Table 6
Summary of Major Findings

RETENTION OF CURRENT SCHEDULE	Teachers, when compared with their counterparts working in other schedules, reported significantly different desires to remain on the current schedule. For example, the schedule (Eta=.06), and teacher subject area (Eta=.06) are reliable predictors of teachers' desire to remain on the current schedule. For example, ♦ The schedule which is most desired to be retained by teachers is the semester block schedule (m=1.14) as compared to the alternating block schedule which utilizes one day a week where every class meets (m=1.55). ♦ Teachers differ as to which schedule is most desired to retain. For example, Math teachers in semester block schools (m=1.01) significantly wish to retain their schedule more than teaches in all other types. Foreign language teachers in everyday short block schools wish to retain their schedule more than their counterparts in the alternating block utilizing study blocks and those using one period per week where every class meets. Art teachers in long block schools wish to retain their schedule to a significant extent (Eta=.34) than art teachers in short block schools. Music teachers (Eta=.75) in everyday short and long block schools wish to teach in a school utilizing alternative block schedules. Special education teachers (Eta=.49) in semester block and seven period day schedules wish to retain their schedules to a greater extent than those in the sixth period day and alternating block using a study block. ♦ Students are more likely than teachers to report that they like the current schedule (-.46)

Conclusions

It is not our intention to draw firm conclusions at this point, since the analysis of the statistical data on actual student and school performance will not be available until the Fall of 1996. However, the findings from the survey and focus group interviews provide guidance that might be useful to school decision-makers seeking to implement alternative high school schedules. Table 7, displays the attributes of different schedules examined in this study which are supported by the study results to this point.

These attributes can be a beginning point for local decision-making. It is recommended that prior to adopting an alternative schedule decision makers should come to aconsensus on what they wish to accomplish with a schedule change and then select the scheduling model with features that will support their goals. The respective characteristics of each scheduling model as revealed by this study are displayed on the matrix on the following page. By first deciding the type of educational program one wishes to foster, the decision of which schedule to adopt becomes much easier. For instance, by comparing the goal of fostering more course opportunities for students with the features of the schedules on the matrix, the decision then is centered on the Alternating Block, Semester Block and Seven Period Day schedules. A similar comparative process can be used for each goal that decision makers adopt. A more complete list of findings is found in the appendices which follow Table 7.

Table 7
ATTRIBUTES OF HIGH SCHOOL SCHEDULES VERIFIED BY STUDY

Research Questions	Perceived Schedule Attributes	Verified Schedule Attributes					
		6P	7P	AB1	AB2	AB3	SB
1. *What effect on school processes?*	Saves classroom time			X	X	X	X
	Increases length of class periods			X	X	X	X
	Decreases the number of class changes			XX	XX	X	XX
	Potential for scheduling twice a year						X
	Shortens amount of time available for instruction in any one course	X	XX				
2. *What effect does the schedule have on teacher classroom behavior?*	No course coverage adjustment required	XX	X				
	Fosters depth of coverage	X					
	Fosters small group instruction			X	X	X	X
	Fosters whole class lecture	X	X				
	Fosters whole class instruction	X	X				
	Enables use of a variety of instructional approaches			XX	X	X	XX
	Fosters reliance on textbook as primary tool	X	X				X
	Opportunity to individualize instruction	X	X	XX	XX	X	XX
	Provides opportunity for project work	X	X	XX	XX	XX	X

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Table 7
ATTRIBUTES OF HIGH SCHOOL SCHEDULES VERIFIED BY STUDY

Research Questions	**Perceived Schedule Attributes**	**Verified Schedule Attributes**					
		6P	7P	AB1	AB2	AB3	SB
	Daily reinforcement of student learning	X	X				XX
	More immediate student testing						XX
3. *What effect does the schedule have on teacher work behavior?*	Fosters a team approach to teaching			X	X	X	X
	Fosters interdisciplinary teaching	nf	nf	nf	nf	nf	nf
	Provides additional opportunities for teachers to help students.				XX		
	Helps teachers develop closer relationships with their students,	nf	nf	nf	nf	nf	nf
4. *What effect does the schedule have on teacher working conditions?*	Fewer student/teacher classes per day			X	X	X	X
	Fewer student/teacher classes per semester						XX
	Students see fewer teachers each term and teachers see fewer students						XX
	More students per teacher per year						X
	Decreases number of students taught each day by a teacher			XX	XX	X	XX
	Instructional time is increased			X	X	X	X
	Teachers and students are able to focus on fewer subjects			XX	XX	X	XX X
	Increases planning time for teachers		X	X	XX		X
	Limits the number of preparations for teachers						XX
	New beginnings each semester						XX
	Ease of attendance monitoring	XX	XX				XX
	No adjustment to longer classes	XX	XX				
	Teacher comfort with established routines	XX					
6. *What effect does the schedule have on student working conditions?*	Opportunity to take more courses		X	X	X	X	XX
	Summer school can be offered at no additional costs to student or school district						XX
	Students can repeat a failed course during the regular school year						XX
	Students are able to focus on fewer subjects			X	X	X	XX
	Students see fewer teachers each term and teachers see fewer students						X
	More student responsibility for education			XX	X	X	XX
	Easier to make up work	XX	X		XX		

Table 7
ATTRIBUTES OF HIGH SCHOOL SCHEDULES VERIFIED BY STUDY

Research Questions	Perceived Schedule Attributes	Verified Schedule Attributes					
		6P	7P	AB1	AB2	AB3	SB
	No adjustment to longer classes	XX	XX				
	New beginnings each semester						XX
6. *What effect does the schedule have on student behavior?*	Improved classroom attendance						XX
	Improved school attendance	na	na	na	na	na	na
	Exacerbates discipline problems in high schools	X	X				
	Leads to decreased dropouts	na	na	na	na	na	na
	Improved discipline problems			X	X	X	X
	Leads to decreased discipline referrals	na	na	na	na	na	na
	Less student boredom	nf	nf	nf	nf	nf	nf
7. How satisfied are teachers and students with their schedules?	Greater student satisfaction			X	X		XX
	Greater teacher satisfaction	XX		X	XX		XX
8. *What effect does the schedule have on student performance?*	Improved grades						XX
	Improved TAP scores	na	na	na	na	na	na
	Improved SAT scores	na	na	na	na	na	na
	Improved AP scores	na	na	na	na	na	na
	Improved performance in schools with lower aspiration levels	na	na	na	na	na	na

SB = Semester Block AB = Alternating Block
X = attribute, XX and XXX=increased level of impact
n f = not found in this study
na = not analyzed in this report

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Appendices

Appendices Content

A - Methodology
B - Summary of Survey Findings
C - Summary of Focus Group Interviews
D- Tables - Impact of Structural variables on the dependent variables
E - Tables - impact of Subject area on the dependent variables
F- Correlations of teacher and student Responses
G - Survey Instrument

APPENDIX A

METHODOLOGY

APPENDIX A - METHODOLOGY

Data Sources

Three sources of information were used to collect the data to answer the research questions, and each are described in the sections that follow. First, MERC survey instruments were used to collect data on the perceptions of teachers and students at twelve high schools (this report focuses on the student data). The survey also requested respondent-level demographic information from the participants. Secondly, demographic information from each school was used. Finally, a series of focus group interviews with teachers were conducted in six alternating block schools (these six schools could even be divided into three different types of alternating block schedules), three semester block schools, one six period day school, and two seven period day schools.

1. Surveys

One method of investigation utilized in this study was the descriptive non-experimental design survey method. Surveys were developed specifically for this study by an appointed MERC survey design committee. The surveys were primarily designed to assess 1) *levels of satisfaction* with student achievement, course opportunities, instructional strategies, relationships, professional concerns, and 2) *frequencies* of and *changes* in instructional practices and other school-related behaviors at each school. The Teacher Survey can be found in Appendix F of this report.

Item Selection

The items on the survey were developed by the Alternative Scheduling Study Group to assess school-related perceptions, behaviors, practices and levels of satisfaction with scheduling options. The items were initially developed by the Study Group to reflect respondents' perceptions regarding four general areas of inquiry. The four areas of inquiry were grouped under the general headings of: Organizational Profile, Curriculum and Instruction Profile, Student Achievement and Behavior Profile, and the Satisfaction Profile. The content of the survey instrument was based on information about scheduling issues collected during a review of the scheduling literature prepared by one of the MERC researchers (Westfall, 1994). Most items on the surveys were adapted (most with little or no alteration) from the items used in published articles on the evaluation of secondary school scheduling. Additional survey items were developed by the study group on consultation with instructional specialists in various subjects to address specific concerns in their field. Further, several items were developed by the study group to address specific concerns of students, parents, teachers, administrators, and various other members of the school communities.

Pilot Survey

Following the initial selection of items, the survey was piloted with students and teachers. A pilot test was conducted to assist in the reduction of the threat to internal validity based on instrumentation. The pilot study participants were not affiliated with the sample population of schools participating in the research study. A group of thirteen teachers from a high school that was not participating in the actual study served as the pilot panel. The school was chosen because of its similarity in demographic characteristics to the high schools participating in the study. The pilot participants were seated together in an auditorium room and a draft of the survey was distributed to them by a team of researchers. Responses were received from 100% of the pilot study participants for a total of thirteen teacher responses. Participants in the pilot school were asked to respond to the survey itself and also to note on the top of the survey the time they began the survey and the time they competed it. They were instructed to write their opinions on item clarity, including any items that were unclear or otherwise difficult to answer, and general comments directly on the survey. After completing the survey, the pilot respondents were also encouraged to address comments to the research team as well.

Based in part of the comments of those teachers who completed the pilot surveys, several items were dropped, and several others revised in minor ways in order to decrease ambiguity. The comments formed the basis for a modest revision of the survey, in which problematic items, including several apparently redundant items, were deleted or reworded for greater clarity. In such instances, an effort to make the intended distinctions more obvious. The vocabulary utilized in the statements was modified to ensure readability and the appropriateness of terminology. In addition, changes were made in the survey format in order to simplify the response task. The revisions resulted a final total of 99 items on the teacher survey. Based on item content, the items on the survey were divided into five sections (see Survey Design).

Survey Design

As mentioned above, the final Teacher survey items were organized into five major sections. The following item counts are for the final versions of the survey:

SECTION 1:	Frequencies of Classroom Practices (35 items)
SECTION 2:	Satisfaction (34 items)
SECTION 3:	Scheduling (7 items)
SECTION 4:	Demographics (17 items)
SECTION 5:	Advantages/Disadvantages (6 items)

The first section was composed of items that were aimed at identifying the frequency with which certain activities and practices occurred at their school this year compared to last year, and was considered a **process change/frequency scale**. Section 2 assessed respondents' **level of satisfaction** with school-related activities and practices. For questions in the first two sections, forced choice Likert-type sales were developed. Section 1 response options numbered from 1 to 5; 5 indicated Always, 4 Most of the Time, 3 Some of the Time, 2 Seldom, and 1 indicated Never. Since it is possible that some respondents might not have enough information to answer each question, a sixth response option was included that was labelled 8 and called "Don't Know". Response options in Section 2 numbered from -2 to +2; +2 indicated Strongly Agree, +1 Agree, 0 Neutral, -1 Disagree, and -2 indicated Strongly Disagree. Again, an additional response option was included that was labelled "Don't Know".

Section 3 assessed perceptions of their current high school schedule and alternative schedules and Section 4 contained demographic questions. Both sections 3 and 4 contained various forced choice response modes appropriate for each question. In Section 5, the survey provided respondents the opportunity to give short answers to specific prompts. The teacher survey contained six open-ended questions. The open-ended questions were reviewed and responses were coded to enable the researchers to determine the perceived advantages and disadvantages of the scheduling models.

A note concerning the student surveys: Since many of the concerns regarding curriculum, classroom activities, instructional practices, scheduling, and demographics can be addressed by students and teachers alike, an attempt was made to have both types of participants (students and teachers) respond to as many of the same survey items as possible. The similarity of the student and teacher surveys also allows for comparisons to be made between the groups on perceptions of the same school-related practices and issues (see Appendix E). Therefore, most of the items on the two surveys are almost identical (for the complete student survey, refer to Appendix I of the MERC student report). For the most part, only minor wording changes were made between surveys. For example, item number 1 on Section 1 of the Student survey reads "My teachers use group activities in my classes", whereas the same item on the Teacher survey reads, "I use group activities in my classes". Additionally, a small number of items related to teacher behavior outside the classroom were included on the Teacher survey, but not the Student survey (see Survey Design section), since students would not be able to answer such questions. Of course, with few exceptions, the types of demographic questions asked of students and teachers differed as well.

Survey Distribution and Collection

Data was collected for all twelve schools during the 1994-1995 academic year. For the six schools that were in the same school district, data was collected in the Fall of 1994. For the other six schools, data collection took place in the Spring of 1995. The data collection processes were as similar as possible at all twelve schools.

Data was collected by surveying teachers at their high school. Based on the number of full time teachers at each school, the appropriate number of surveys were distributed to all twelve high schools participating in the study. Surveys were either personally distributed by MERC to school offices or sent through the U.S. Postal Service. School administrators then distributed surveys to teachers (usually in teachers' boxes).

Teachers received a copy of the survey and a memo explaining the purpose of the survey and assuring them the confidentiality of their responses. Teachers had approximately one week in which to complete the survey. Completed surveys were returned to the school principal's office, then sent back to the district central office for pick-up by the survey team, or were mailed to MERC.

To enhance the reliability of the survey instruments, standard conditions of data collection were established as much as possible. All of the surveyed respondents received the same written instructions regarding completion of the survey instrument. A time line for responding was also consistent for all of the participants. And, as mentioned above, to ensure that the instrument's reading level and the language utilized in the survey were appropriate, the instrument was pilot-tested on the respondent's peer groups.

Respondents

(See Table of the report for the response rates from each school.) Teacher respondents included:

Gender. 479 Females and 248 males.

Subject. 115 English teachers, 95 Science teachers, 91 Math teachers, 83 Social Studies teachers, 79 Vocational and Computer Ed. teachers, 70 Foreign Language teachers, 48 Special Ed. teachers, 22 PE teachers, 22 Other teachers, 21 Performing Arts teachers, 20 Home Ed/ and Industrial Arts teachers, 18 Art teachers, and 9 Health & Driver Ed. teachers.

Age. 89 20-29 year olds, 164 30-39 year olds, 291 40-49 year olds, and 168 50-59 year olds.

Experience. 62 teachers who'd been teaching under 2 years, 65 teachers who'd been teaching 2-5 years, 89 teachers who'd been teaching 6-10 years, 130 teachers who'd been teaching 11-15 years, 126 teachers who'd been teaching 16-20 years, and 257 teachers who'd been teaching more than 20 years.

2. School Demographic Data

For use in statistical analyses (see Analyses--Covariates section below) the following information was obtained from each of the twelve schools (see Table 1): the type of schedule the school was presently using (schedule), the number of years the school had been using the current schedule (years), the number of minutes in the average class under the current schedule (minutes), and the total number of students in the school (population).

Table 1. School Demographic Data

Schedule	Years	Minutes	Population
6 Period	10	51	1371
7 Period 1	10	45	1173
7 Period 2	1	45	684
Alternating Block 1-a	4	104	1400
Alternating Block 1-b	1	88	1888
Alternating Block 1-c	2	88	1472
Alternating Block 2	3	90	1280
Alternating Block 3-a	2	90	674
Alternating Block 3-b	2	90	800
Semester Block 1	1	90	1271
Semester Block 2	1	90	1605
Semester Block 3	3	90	1500

3. Focus Group Interview Data

While the survey provided quantifiable information to answer the research questions regarding the satisfaction levels and process changes, further verification was sought through site visits and interviews. The focus group and individual interviews were designed to elicit information that provided: (1) guidance to the research team as it reviewed the survey information, (2) insights into the interpretation of the survey data, and (3) examples, and illustrations to explain the data.

A protocol for interview activities was developed that sought insights related to the participant's experiences with the schedule being employed at each school. The protocol contained a set of focus questions that guided the discussion and note taking with each focus and individual interview. The protocol grouped guiding questions in four categories of inquiry: organizational, curriculum and instruction, student achievement and behavior, and teacher, student, and parent satisfaction.

Site Visits.

One or two members of the research team visited groups of teachers in the high schools with various schedules; individual interviews with students, counselors and administrators were also conducted. No attempt was made to request that information be especially prepared for the site visit. Each visit was coordinated by the school principal, or a designated administrator, and the principal investigator.

Twelve participants were invited to participate in each focus group, however, the number of participants varied across schools. The invitees were selected from certain categories to help ensure the representation of various populations in the focus group interviews. Based on these categories, focus group participants were randomly selected from data bases housed on computers found in the school division central offices. The categories included the following groups: advanced placement, foreign language, special education, performing arts, science, math, and social studies teachers. Administrators usually included the principal, assistant principal, and a guidance counselor.

Teachers were randomly selected from lists of teachers in each subject area. The list of selected teacher participants was sent to the principal investigator who distributed them to the site coordinator along with a suggested time schedule for the visit. Individual and group interviews were scheduled by the site coordinator with individuals in each of several selected categories. The site coordinator was responsible for establishing the final schedule for the meetings and to assure that proper school procedures were followed. Focus group sessions were usually scheduled with teachers at the end of the school day.

Each focus group interview was tape recorded and members of the team also took appropriate notes related to the interview protocol. Participants were assured that their responses would be confidential and the tape would only be referred to by the researchers when drawing their conclusions and writing the final report. They were further assured that if the researchers used quotes in the report to illustrate a point they would be made anonymously.

The site visit team debriefed following each visit. Each member submitted a brief summary of the vignettes, special testimonials, and examples that illustrated the findings from the survey data.

DATA ANALYSIS

Survey Analyses

In all analyses, the numbers of respondents who did not answer and who answered "don't know" were extracted from calculation. The analyses were conducted from the responses of those who responded by circling one of the other five response options on the survey. The original five response options were averaged to produce a mean which could be tested for significant differences. Since this study was concerned with investigating the effects of the schools' schedules on survey responses, analyses using inferential statistics were conducted. Along with a good study design, inferential statistics enable us to determine the extent to which a schools' schedule and/or other variables may impact survey responses.

As mentioned above, the study's primary purpose was to determine the effects of the different scheduling options on dependent variables (see Dependent Variables section, below) that are of interest to not only to educational researchers but to everyone involved in school communities. These dependent variables fall into 3 main categories: Teacher Behavior (19 items), Teacher Satisfaction with the Schedule (3 items), and Teacher's Perceptions of Student Performance (5 items), and total 27 survey items. To determine the effect of the schedule type on the variables of interest, a general factorial analysis of variance (ANOVA) using unique partitioning of the sums of squares, was conducted with schedule type (6 levels) as the independent factor, and each of the 27 survey items as dependent variables in separate analyses.

Because factors other than the schedule type (such as the size of school or the number of years in the schedule) may also have an impact on these dependent variables, and such factors could have *more* of an impact on the variables than schedule, analyses were conducted to determine the effect of the schedule while controlling for the effect of other variables. In sum, analyses were conducted in two stages, each with two phases. The two stages refer to differences in the number of factors used in the ANOVA -- schedule is the only factor used in Stage 1 analyses, whereas schedule plus a covariate (or covariates) are used in Stage 2 analyses. The two phases refer to two types of statistical tests (p-value and Eta-squared value) that were conducted on the independent variable - dependent variable relationships.

In Stage 1, all 27 dependent variables were run in an ANOVA with schedule as the independent factor. Items for which the probability level (p-value, or alpha level) was below the standard .05 level of significance (indicating that schedule type has a significant effect on the item) at phase 1 had, in phase 2, an analysis of effect size calculated. A probability level under .05 means that the odds of getting this result by chance are less than one in twenty. While this a normally accepted level in behavioral science and education research, the large sample sizes led us to conduct a test of effect size to ensure that findings reported in the study were not only statistically significant but also practically significant (Tabachnick & Fidell, 1989). Items for which the effect size measure (Eta-squared) reached at least the standard .05 level (indicating that 5% of the variance in the item can be accounted for by the schedule type) were considered to have been at least moderately impacted by the schedule (using conventional effect size guidelines for the social and educational sciences) and are reported in this report. Effect size (or the size of the relationship) was employed as the second criterion for reporting a relationship as significant to insure that the results of the analysis had practical utility and to determine the strength of the association.

In sum, in Stage 1, to declare a statistical effect 'real' we required it to be statistically significant (at the conventional p< = .05 level) and also to exceed an effect size criterion of Eta squared of .05 (5%) or higher. That is, if 5% or more of the variance in a survey item could be accounted for by the school, the relationship was considered empirically meaningful, and is documented in this report. If the relationship did not meet this criterion it is not referred to as a significant finding in this report. Effect size cutoffs (.05) employed in this study are generally considered moderate relationships among variables in the social sciences. It indicates that knowledge of the value of one of the two variables (e.g., schedule) moderately increases our ability to predict the value of the other (e.g., the frequency of group activities used in the classroom). We expected that the schedule type would have a 'real' effect on all 27 dependent variables, however, this hypothesis was only partially supported, since only 7 of the 27 variables seemed to be significantly affected by schedule type (see Results section in report, or Appendix B - Significant Findings).

In Stage 2, procedures identical to those used in Stage 1 were employed, with the exception that covariates (see Covariates section, below) were added to the ANOVA (resulting in an analysis of covariance, or ANCOVA) to determine if the effect of schedule was would weaken or strengthen when other variables were held constant. It was hypothesized that schedule influences the dependent variables more than do the covariate variables. Therefore, for items on which schedule had a 'real' effect, controlling for the effect of the covariates was expected to have no detrimental impact on the significance or effect size of schedule type (that is, the ANCOVA was not expected to be reveal a decrease in p-level or effect size). This hypothesis was supported (see Results section).

After the analyses were conducted and the items on which schedule had a significant impact were determined, the mean responses for each item by schedule type were examined. Examination of the means was necessary to investigate the actual impact of the schedule on the item issue (e.g., which schedule type was associated with the greatest use of group activities).

Dependent Variables

As mentioned above, the dependent variables can be conceptualized under the three general headings: 1) Teacher Behavior, 2) Teacher Satisfaction with the Schedule, and 3) Teacher Perceptions of Student Performance/Behavior.

1. Teacher Behavior

The 19 survey items dealing with teacher behavior can be divided into five main categories: teacher work behavior, assessment, materials, instruction, and curriculum. Each category has between three and five survey items that comprise it.

Teacher Work Behavior. Teacher work behavior can be defined as the professional duties and activities of teachers outside the classroom/instructional setting. The five survey questions that investigate teacher work behavior include: "I use learning technologies for developing instructional materials, lesson planning, and/or grading" (survey question q29); "Teachers at my school form informal support/discussion groups to exchange ideas and resources" (q32); "Teachers at my high school take a team approach to teaching" (q34); "Teachers at my high school work to integrate instruction across subject areas" (q35); and "Generally, I am satisfied with the amount of time I have for lesson planning, correcting, and grading" (q2q30).

Assessment. The four items dealing with assessment included: "I use portfolios to assess my students' performance (q15); "I use essay questions to assess my students' performance" (q16); "I use multiple choice and true-false questions to assess my students' performance" (q17); and "I use rubrics (specific criteria) for scoring student assignments." (q30)

Materials. The four Items dealing with materials included: "I uses textbooks as a primary instructional tool" (q13); "I use a variety of instructional materials other than textbooks in my classes" (q14); "I use worksheets in my classes" (q19); and "I require students to use multiple sources of information to answer project-based problems" (q20).

Instruction. The three survey items that investigated instructional delivery practices included: "I use group activities in my classes" (q1); "Most class time is spend in whole class instruction" (q3); and "I use whole class lecture in my classes" (q18).

Curriculum. The three survey items that assessed behavior relating to the curriculum were: "I am able to cover the material for my classes in the amount of time provided" (q7); "Generally, I am satisfied with my students' achievement this year as reflected in their grades" (q2q11); and "Generally, I am able to cover the approved county curriculum in my classes" (q2q34).

2. Teacher Satisfaction with Schedule

Satisfaction with the schedule type was assessed using three survey items:"I like the current daily schedule of classes at my school [strongly agree . . . strongly disagree]" (q3q5); "Overall, I would rate my experience of teaching under the current schedule as: [excellent/good/fair/poor/terrible]" (q3q6); and "Considering all your impressions about the current schedule at your high school, select a response: [I would like to remain in the current schedule/I would like to teach under a different schedule]" (q3q7).

3. Teacher Perception of Student Performance/Behavior

Student performance and behavior, as perceived by teachers, was investigated using the following five survey items: "Generally, I am satisfied with my students' achievement this year as reflected in their grades" (q2q9); "Generally, my students are gaining an in-depth understanding of the subject matter" (q2q18); "Generally, my students are learning as much as they should be this academic year" (q2q21); "Generally, I believe attendance in my classes is better this year than three (3) years ago" (q2q32); and "Generally, I have more discipline problems this year than least year" (q2q33).

Covariates

As mentioned above, when examining the effects of the schedule, variables were chosen that might also affect the dependent variables. These variables, called covariates, were controlled for. The covariates can be placed into the following categories: School variables and Teacher Variables.

School variables. School variables are factors measured at the school-level; they are factors that describe the school, not characteristics of individuals. The school variables that were used as covariates in the present study include the type of schedule the school was presently using (schedule), the number of years the school had been using the current schedule (years), the number of minutes in the average class under the current schedule (minutes), and the total number of students in the school (populat.). Table 1, above, shows the exact numbers for the school-level covariates that were provided by each school.

Teacher variables. Teacher variables are factors that are measured at the individual-level and describe individual characteristics, not school characteristics. Examples of teacher variables that are used as covariates in the present study are: how many years the teacher has been working, the total number of years the teacher has been teaching at their present school, the number of periods a teacher teaches a day, the number of periods a teacher teaches each week, the number of preparations the teacher has this year, the size of their average class, and the number of AP and Honors classes they teach this year.

APPENDIX B

SUMMARY OF FINDINGS

Appendix B

Summary of Survey Findings on Teacher Behavior

Table 8 **Summary of Findings on Teacher Behavior**	
Research Questions	**FINDINGS**
What effect does the schedule have on teacher classroom behavior? ***Coverage***	Teachers, when compared with their counterparts working in other schedules, reported similar levels of ease or difficulty in covering the curriculum. For example, the schedule, minutes in the block, years on the schedule by themselves did not did not demonstrate a significant effect on the teachers ability to deliver the curriculum. There were some significant exceptions to this finding. Type of student served by the school and the teacher's subject area were the most reliable predictors of teacher ability to cover the curriculum. For example. • The number of students pursing the advanced studies degrees and the number of minority students in the school did demonstrate significantly influences the ability of the teacher to cover the approved school curriculum (p=.00, Eta=.07). • The teacher's subject area was the most reliable predictors of teacher ability to cover the curriculum (p=.00, Eta=.15). In particular, English teachers in long block schedules generally report they are better able to cover the curriculum in the time available than English teachers in short block schedules. However, they are less satisfied with the depth of coverage. Semester block English teachers report the less satisfaction with their ability to cover the school division's approved curriculum than short block teachers. Math, social studies, and vocational teachers are more satisfied with their depth of coverage than their counter parts in short block schedules.
Small Group Instruction	Teachers, when compared with their counterparts working in other schedules, reported similar levels of use of group instruction. For example, the schedule, minutes in the block, years on the schedule by themselves did not did not demonstrate a significant effect on the teachers use of small group instruction. • Teachers in all subjects and all schools report using group activities at similar levels. There were some significant exceptions to this finding. For example. Math teachers in long block schedules report higher use of group activities than math teachers in short block schedules. The math teachers in the semester block schools reported significantly higher use of group activities than math teachers in other schedule types. Science teachers in long block schedules report higher use of group activities than math teachers in short block schedules with one exception, the alternating block schedule utilizing a study block. The math teachers in the semester block schools reported significantly higher use of group activities than science teachers in other schedule types.. • Teachers were more likely to report higher usage of group activities than students. However, students at schools with different schedules report significantly different uses of group activities by their teachers (p=.00, Eta=.05). For example, their reported incidences of use of group activities are higher in the semester block schools and the alternating block schedules schools and lower in the traditional six and seven period schedules. However, students do not report any significantly different uses of whole class lecture and whole class instruction. • There was no correlation found between student boredom, satisfaction with their schedule, or their grades and teacher use of group activities, whole class lecture and whole class instruction.

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Table 8
Summary of Findings on Teacher Behavior

Whole Class Lecture	Teachers, when compared with their counterparts working in other schedules, reported similar levels of use of whole class lecture. For example, the schedule, minutes in the block, years on the schedule by themselves did not did not demonstrate a significant affect on the teachers use of whole class lecture. There were some significant exceptions to this finding. ♦ The teacher's subject area were the most reliable predictors of teacher the most reliable predictor of use of whole class lecture by teachers is the subject area (p=.00, Eta=.07). In particular, English teachers in long block schedules use less whole class lecture than English teachers in short block schedules. The lone exception to this finding is found in English teachers in alternating block schools with a study block. The use more lecture than English teachers in other long block schedules. Furthermore, English teachers in semester block schools use less whole class lecture than English teachers in other schedule types. Math teachers in long block schedules use less whole class lecture than math teachers in short block schedules. The lone exception to this finding is found in math teachers in alternating block schools with a study block. The use more lecture than math teachers in other long block schedules. Furthermore, math teachers in semester block schools use less whole class lecture than math teachers in other schedule types.
Instructional Materials	Teachers, when compared with their counterparts working in other schedules, reported similar use of instructional materials. For example, the schedule, minutes in the block, years on the schedule by themselves did not did not demonstrate a significant effect on the teacher's use of instructional materials. Subject area proved to be the best predictor of use of instructional materials. For example, ♦ English teachers differed on their use of the text book as the primary instructional tool (Eta=.11). English teachers in alternating block schedules report less reliance on the text book as the primary instructional tool than English teachers in the everyday short and everyday long block schedules. ♦ Teachers report significantly less use of a variety of instructional materials in semester block schools than other schedule types. For example, English, math and foreign language and vocational teachers in semester block schools report less use of a variety of instructional materials than there counterparts in other schedule types.
Student Assessment	Teachers, when compared with their counterparts working in other schedules, reported similar student assessment strategies. For example, the schedule, minutes in the block, years on the schedule by themselves did not did not demonstrate a significant effect on the teachers use of assessment strategies. Subject area proved to be the best predictor of assessment strategy. For example, ♦ Science teachers in semester block schools use multiple choice, true-false questions to lesser extent that science teachers in other schedule types. The alternating block schedule with study block uses multiple choice, true-false questions to a larger extent than other long block schedules.

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Table 8
Summary of Findings on Teacher Behavior

What effect does the schedule have on teacher working conditions? ***PLANNING***	Teachers, when compared with their counterparts working in other schedules, reported similar levels of satisfaction with the amount of time for planning. There where two exceptions to this finding. Block minutes (Eta=.09) and subject area (Eta=.06) demonstrated a significant effects on the manner in which teachers responded to this question. For example, • Teachers in schedules utilizing 90 minutes in the block were relatively more satisfied than teachers in schedules utilizing 104 minutes, 51 minutes, 85 minutes, and 45 minutes with the amount of time they had for lesson planning, correcting and grading. • Math teachers in long block schedules were significantly more satisfied than math teachers in short block schedules with the amount of time they had for lesson planning, correcting and grading. In particular, math teachers in the alternating block utilizing the study block were the more satisfied than other math teachers. • Schedule significantly effects the number of classes teacher teach in a day (p=.00, Eta=.08). However, other structural variables (minutes p=.06, Eta=.01; school, p.07, Eta=.00; years p=.39, Eta=.00) when used together have a nonsignificant p=.147, Eta=.01, yet they lower the effect of schedule to drop below significant. Block schedule teachers teach three classes per day and non blocked schools teach around five classes per day. In the sixth period school however teachers teach average around four classes per day. • The number of minutes in a schedule significantly influences teacher satisfaction with planning time for lesson planning, and correcting and grading papers. This relationship is influenced by years on the schedule. • Teacher subject area significantly influences teacher satisfaction with the amount of planning time they have for lesson planning, correcting, and grading (p=.01, Eta=.06). • Teacher subject area remains significant, even after controlling for structural variables of minutes, years, and school. • Teacher subject area remains significant, even after controlling individually for teacher working conditions such as years teaching, number of years present at the school, periods taught during the day and week, number of preparations, class size, and teachers of AP and Honors Classes. However, when the teacher working conditions covariates were controlled for at the same time, they were significant higher (ETA .12) than the effect of subject area on teacher planning time (ETA .07). Subject area significantly effects teacher use of technologies for developing instructional materials, lesson planning, and/or grading (p=.03, Eta=.05)
What effect does the schedule have on student behavior? ***DISCIPLINE***	There were no good predictors of differences with teacher perceptions of discipline problems in the results. Teachers reported similar levels of satisfaction with fewer discipline problems this year than last year as one. There was one exception to this generalization. • Physical education teachers in ten of the twelve schools participating in this study reported greater levels of discipline problems this year than last. These perceptions, however, do not appear to be related to the schedule type since they occurred in everyday short, everyday long and alternating long block scheduled schools.

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APPENDIX C

SUMMARY OF FOCUS GROUPS

Appendix C
SUMMARY OF FOCUS GROUP INTERVIEWS

Focus group interviews were held with twelve students at each school. The interviews lasted around one hour and a half. A interview protocol was designed and followed. The groups were composed of two honors students, two advanced placement students, six average ability students and two special education students. The virtually unabridged comments are displayed as follows under the categories of teaching, learning, and cost/benefits. Within each category, comments are further categorized by type of schedule used by the school the students attended.

IMPACT OF THE SCHEDULE ON TEACHING

Alternative Block Teacher Comments:

- The positive aspects of the classroom situation, the fact that you can have more of a unified lesson, you can start out with motivating factors -- and I teach English 12, AP Honors and an x level class, so I have quite a spectrum in there and with my Honors we've got motivating, writing, discussing, vocabulary, we'll make it to whatever book we're going to read, we get to read an entire short story, and then they have some homework to do and they've got two nights to do it. That's not a problem. But I just like the whole unified factor of it. Instead of coming in and doing a little motivating and discussing, then it's time to go, and they have to do something else at home as opposed to what I have to do at home. I'd like them to be with me for certain things. I'm not finding that the 1 1/2 hours has been any problem as far as attention because it also gives us time to do group work, discussion work and then come back together as a class instead of dividing all of those factors up into 2-3 days because that creates more of a problem with absences,

Alternating Block Teacher Comments:

- The issues of students not doing homework or any work, they were there long before block scheduling.
- How much responsibility should we take in terms of allowing children to turn in late homework, allowing them to make up work over a very extended time, re-teaching material to children who are not motivated. It's a very difficult call.
- With the slower kids, they never did their homework, so now they have to work with me in class, so there's some learning going on whereas before there was none--they'd come in and not have their work. They still don't have their work, but they do when they're with me.
- I can see some real pitfalls for the average kid. I was concerned that average kids, c-level, they need to meet every day and here's why: homework assignments are easily lost or forgotten about, if not seen every day. Absences really hurt this level of student. Won't hurt the AP student. If they're absent, it hurts, especially with makeup. Then if say this allows for makeup, well you're still slowing down the whole educational process because of students not being present.
- In Spanish...the optimum situation would be that when you teach something and assign it, they go home that night and do their homework that night and then the next night you take all that work out again and go over all the notes you hope they've taken in class, and review their vocabulary and review their flash cards and study so when they see you the next day, they're sharp, they've practiced, just like piano or typing. The typical average kid has either not done their homework at all or if they did it, they did it 10 last night, looked at it and couldn't figure it out because they couldn't remember what you taught, or worse yet, they copied it from somebody else 20 seconds before class started. So I'm finding half the kids know what they're doing because they're sharp and prepared and half the kids don't have a clue. [Interviewer - Wouldn't those kids that didn't get the makeup or didn't do their homework...wouldn't they not be doing their homework if the class met every day? The teacher would have the opportunity to reinforce an expectation every day. So every other day, it reinforces one less day they've had the pressure.

- It's really the pressure the teacher can bring to bear of meeting every day which puts the responsibility on the teacher putting pressure on, and students responding to it, as opposed to the student taking the responsibility.

Alternating Block Teacher Comment:

- I assess students differently than before...they can take the written part of a test and an application in one period; before it was spread out. They test better.
- I can quiz more and that has helped me assess (I call them concept checks, they call them quizzes), but if they don't get the concepts, then we go back and I don't count that concept check so to me, because of the hour and a half, I've got to quiz them more frequently or else there's too much by the time we get to the test. That has worked very, very well for me.

Alternating Block Teacher Comments:

- I'm not finding that the 1 1/2 hours has been any problem as far as attention because it also gives us time to do group work, discussion work and then come back together as a class instead of dividing all of those factors up into 2-3 days because that creates more of a problem with absences, those who miss the beginning of a unit, and the other thing is that special ed was mentioned...
- In PE it's nice that we have the time to break down the skill, like if we're doing particular skills, we can do that, do some drills and play. On the other hand, once the skills are learned, and we're out there playing, they get bored very quickly. Part of it is because of the various skill levels of the students. With someone who is really skilled and they're matched up with somebody who's not as skilled, the interest level is "how much longer; when are we going in?"
- The trouble with the low level kids is attention span. 90 minutes, most of those kids are TV kids and they're used to half hour TV and even then, they need commercials.
- [Special Education - With the LD students, the teachers seem to feel that it's too much time on one area and my feeling is to just vary the activity, but again we haven't been trained to do all that variation and sometimes that's difficult but I think that's more of a ... I rate the schedule a 10 but my department would probably rate it a 7.

Alternating Block Teacher Comment:

- People in my department said please let them know-- we're ones who are more able to get around the room and help individuals than we would be in the shorter time period.

Semester Block Teacher Comments:

[Interviewer: "Is learning within this block more effective, or is the course content easier?"]

- Are there more choices? I don't think either one of those fits. Course content is not easier.
- It is more effective because it's more concentrated ...
- I don't feel it's watered down at all.
- I would say watered down only because i was teaching different levels, so it's different. I don't hold ... different level kids accountable for the same sorts of thing.
- I'll tell you what it's made me do is to look at what's important and leave out the less important things. I'm not sure that covering 1,2,3,4 is important...I have to look and see what the concepts were, and I've got this amount of time to look at those concepts and it's made me focus on what's really important and I think that's been a positive thing. I have left out some things, but I'm not sure they were necessary. I'm not sure what I left out was ever worthwhile.
- I think it's made us focus on the concepts rather than the little factual things.
- It's a mixed bag. I would say... one of the things I really like to do with honors chemistry, is...have some experience in thinking for themselves and we would do that with essays and there's just not the down time to correct them, or for the kids to do them for that matter, along with the treadmill we're on. You're blasting through this stuff and if you slow down the pace, you're not going to do it and the kids are going to die in the AP. That's a constant -- you have to do a certain amount of work and do it well with the kids. But I just have to axe that out of my program. That was a good 1/3 of what I took a lot of pride in, so you have some other things where you could develop an idea and really conceptually move with that, but I'm not comfortable overall with what...

- We're experiencing the same thing in **foreign language.** We're not able to cover the curriculum that we used to cover. Not that we liked that schedule either, but this has really put a crunch on us and we feel that after 3 semesters a student would not be as proficient in the language as the student who's taken 3 years of a language. Nowhere near as proficient. And we've also cut a lot of practice time. There's just not the time in the classroom for testing and evaluation, orally, that we used to have.
- We cover what is needed, but what is extra is a problem. That's not at all the case. You can stand up there for 2 days, or for 2 hours and say 'I covered x amount of material' and you didn't cover it--you may have covered it, but you didn't teach it. That's not enrichment. And that's part of the idea to take something sterile and make it real. So I'm concerned about categorizing these different statements into crunching numbers.
- We could make the schedule work, we feel like our curriculum would need to be overhauled to fit the schedule... But the schedule could work if we could change the curriculum to meet it.

Semester Block Schedule Teacher Comments:

- I have heard some students say they like it. Their reasons for liking it don't exactly suit me. One of their reasons are that it is they have less homework. To me that should not be the goal of the students, that things be easier. I thought more knowledge was the object of going to school. So if their notion of success is that it's easier and they have less to learn, then I suppose they'd say it's successful.
- In honors they seem to be more mature and able to handle the outside practice on their own and they seem to do better. But the z-levels, we find that they are totally will not practice outside of class. The y-levels, it's perfect for them because you can do much more, spend more time practicing with them in class and give them less homework, but still they do the little bit that they have to do and they come in ready for the next day. You don't have to cover as much material.
- I generally give them a few minutes at the end of class. If they're good, they can knock out a large portion of it. Because I know the load on them is fairly substantial with homework, even though they have less classes...
- I found that with lower level kids, if they start it in class, the odds of me getting it complete, are so much greater.
- [Interviewer - Are you able to grade the homework on time with this schedule you're on?]
- I generally can.
- I don't always grade homework; I sometimes...the homework I give is not busywork, but sometimes I just check it to see that it's been done. Sometimes I don't do it at all. I always go over it if there's a question, but I don't take a grade on every homework.

Semester Block Teacher Comment:

- Have to test them every week; otherwise there's too much material. Scantrons used more often because they are quicker.
- Longer period better for exams because have longer to take it and can ask questions before exam.
- It just occurred to me--I am using more prepared tests, multiple choice particularly, that comes with the text than I have in the past so maybe that's why I'm also using more essay, which takes a whole lot more time to grade, and it hadn't occurred to me until just now.
- I don't think I'm doing as many projects. In terms of the standards and quality of the work they do, if anything, they might be just a little higher here. I don't know, with having them every day for a long period of time, I almost feel I can push them a little harder to produce a little more. I'm not doing as much, but it might be just a little bit better than it was.
- I'm a tougher grader than I was.
- I have had to limit my essays. I tried to compensate with having oral debates with a written component to it. It just doesn't touch it. It seems that we're quizzing every other day and again some of the written work has got to go. They can't be writing as many essays as they normally would.

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Semester Block Teacher Comments:

- (English) - It's very difficult to deal with lower levels in a block of time like this. Many of them require a great deal of attention which they would get one way or another. It's very taxing and challenging to...try to answer their emotional needs and to try to shift gears academically to make transitions between things. [Interviewer -is it the same under either schedule?] Just more agonizing for them under 85 minutes, but for lower level, I think...although I have a lower level AP science class and they're not having a problem with that. But they're older kids.
- Schedule is very beneficial for lower ability kids; fewer failures; fewer students going to summer school; fewer teachers, fewer subject area help kids, especially kids who have done poorly in the past.
- 86 minute classes - depends on subject matter whether kids like classes or not.

Seven Period Schedule Teacher Comment:

- There is a downside. My classes are not anywhere near as far along this year as last year. Maybe next year, I'll be a little more adept with my subject matter. To add to that, this is my 10th year in the school teaching the exact same level of geometry and my classes are a full 2 chapters behind now, where we would have been the last 9 years, and we just had to pick and choose what material...there is some material these students will not have exposure to.
- I'm at the same level. [English] Maybe that's more conducive to...
- Some of it probably has to be with adapting... in some of my classes I'm behind and in others, I'm even with last year. I think some of it has to do with students adapting and me adapting. Some aspects are easier to adapt than others.
- I think that's true. In my algebra, it's much easier to adapt...in geometry, though, you cannot go on until you "get it".
- Rote memory things do not seem to be affected by this. Things that they have to comprehend and understand and function with, they seem to have more trouble.
- It's been a positive thing for me in English. I have AP students and have been more readily able to **wean them away from _____ the analysis of things as opposed to their doing it.** I'll start it in class and finish it. They can take it home and they do parts of it--that kind of thing--so it kind of weans them away from depending on me for all of the analysis. They have to do it themselves which is what they're supposed to be doing anyway.

Seven Period Day Teacher Comment:

- [Foreign language?] - In my upper level classes, it has not been a problem. We accomplished as much this year as last. Beginning classes have come up short because they need that extra attention from me, one on one and there's not enough time to do it.
- [special education] - For special ed, is better because they are...emotionally disturbed students, the more you give them, the more they grasp. The less time you give them, that's when they get into things they're not supposed to be into and conflicts occur.

Six Period Schedule Teacher Comments:

- I'm able to cover the county curriculum, (mathematics) I finished May 1.
- I finished (English), May 16. I used this extra time to teach more in-depth in areas I think are important.
- Sometimes I can, and sometimes I can't, I think it depends on the level of student dictates as to how far I get on coverage.

Six Period Day Teacher Comment

- Seldom do students do homework in class.

IMPACT OF SCHEDULES ON STUDENT PERFORMANCE

Alternating Block Teacher Comment:

- More, no, but they're understanding more...You don't get as far.

Alternating Block Teacher Comment:

- I think we went to the alternating block because the data showed that you could have more reinforcement activities. It allowed for re-teaching of concepts, this is I think one of the reasons educationally that county moved in this direction. That goes hand in hand with the cutting down of content and more focus on quality and learning. Being able to go into more depth on a particular subject. To begin and go through a whole process and finish up in one session – closure...

  Now, I think it depends on the subject. I teach an upper level English class and I'm very pleased with it because you can start and finish a discussion and with the block you can do a good discussion.

Alternating Block Teacher Comment:

- I still have terrible grades because that is the nature of the beast, even though my students care... I don't know if they are learning more... I think unfortunately most of us feel like saying no but...
- Sometimes, I think students learn better because they take fewer courses a day. Still, they still have quite a responsibility. I'm not sure...

Alternating Block Teacher Comments:

- ... more kids skip school and cut classes than before because they have figured out there's a lot of time you get caught too. If you miss a class that meets Tuesday/Thursday, and you skip Tuesday and Thursday Mom writes you a note and you come in on Monday, depending on what the principal's dealing with, it's like any kind of reinforcement, you got caught, but you're willing to take the chance.
- the attendance issue not necessary coming to the first period where you check the attendance, but it's skipping after the attendance is taken. I think kids are more apt to give it a try, where before ... the next day, maybe they'll forget and I'll fall through the cracks. I think kids are more apt to cut than they were before.
- The ones who are there every day are actually making better grades than I thought they would have. But the ones who are absent are, it really affects their grades terribly when they're absent one day.
- when they miss 1 day it's like they missed 2 days worth of material

Alternating Block Teacher Comment:

- As far as behavior problems, if I were more tense, I wouldn't be able to handle the situation as well as when I'm more relaxed. That has a lot to do with my decorum and also with how the students are feeling. There is a sense of calm, not as frantic as before, and the children move from task to task and I think they are nicer people to be around and...I'm not sure that they don't learn as much because when you're dealing with a lot of conflict in your classroom, that is very disruptive to the learning process...
- With fewer passing times in the hall and a less hectic pace in the entire day, this year quieter.
- It helped our discipline problem because in those 7-8 minutes when 2,000 are trying to get from one end of the school to another.
- I feel this year as opposed to last year, I have more tardies, more students being late to class. Now it's because they have so much more time that they take for granted they have extra time. Last year we only had five minutes between classes and this year we have eight and I'm all the way up on this end of the building so we're quite a trek from the other side of the building but I'm having a big problem with tardies this year that I didn't have last year.
- Discipline problems seem to be down; since there are less changes in the hall, there is less opportunity for fighting & altercations;

Semester Block Teacher Comment:

- Students are very excited plus, they're making better grades than they ever have before, and not just in business. They're saying in other classes, too. Students in math are not saying that. Ours are moaning and groaning and saying we're going too fast.
- More kids on honor roll because fewer classes to concentrate on and only 4 final exams - not because of watering down. I do provide less diversity/variety of content.

Semester Block Teacher Comments:

- I don't know if I have the papers and that sort of statistical evidence to back it up, but my perception is that they learn perhaps better on certain things and on other things, not nearly as well. For example, I think they learn how to (in English when I'm discussing things) function in a seminar situation. It functions better. Because there's more time for that. I think some things do suffer, though, whether it's my fault or the schedule or a combination, but things that might require just sheer repetition; that I sometimes don't do, because I feel like I need to move on to cover additional content. I don't know if those things...

- I see them as thinking a lot more so than in my experience with other...but I don't know if that's true or not, it's just an ending sense that I get. A lot of that comes through discussion.

Semester Block Teacher Comments:

- I think I see more of their ability to solve problems...
- I see it as more like problem-solving skills, i.e., what do you do if, and how do you approach that? Rather than facts and data - I don't know, again, whether that's my fault or theirs or where that problem might lie... Interviewer "is it a fault?" Well, I don't know. I feel that it is for some reason.

Semester Block Teacher Comments:

- Well, I'd like to put in my two cents about the make-up part because I did [taught in] the 7-period every other day schedule, and of course the straight 6 before that. I think with this schedule, it's easier for kids compared to the every other day schedule to make up things because you get them, boom, the next day. If when you're seeing the child every other day and they're absent one day, it's really kind of a nightmare to keep track of, when did I last see you, etc? And that gets to be... your head really can spin on that one.
- Well I remember we had a speaker from N.C. who said you have to be really strict. You can only have a certain number of absences...at first our absences were better, but this semester... But being the first year, not having all the electives that are going to hopefully become available in the future, and hopefully a change in attitude of the kids. In terms of a 4 period day, why is it our problem if they want to cut out early?
- That's not the fault of the schedule--that's an attendance problem. Yes, but we have to work within Chesterfield County. I wish the county had allowed us to try all the things that the guy from N.C. suggested. Like a few more faculty members, give us an attendance policy; that type of thing.

Semester Block Teacher Comment:

- When they're good, they're very good and when they're bad, they're awful. If you've got someone who is off the wall and is a real discipline problem, 90 minutes is a long time. If you really have a kid with a lot of problems, on a shorter schedule, you kind of grit your teeth and make it to the end, but they can be extremely disruptive and really throw off your teaching. But for the most part, my kids have been really pretty good.
- I think it's calmer than on a regular 6-period day where they're changing classes so often. They're not in the hall as much. I think because of the newness, people haven't been sure of the ground rules and I think there's been some consternation about that, but in the beginning of the year, it was a little wild and woolly, but I would have to say it's generally pretty calm.
- Well, in business, I think it has really improved. We have had the fewest number of detentions and things like that. So it's been great.

- We've had a horrible time in the math department this semester. It's all levels. I don't know what it is. All I know is that I've got 3 teachers who have a great deal of experience who generally had no problem before who are now having tremendous problems.
- We get a 12-minute break between 1st and 2nd period and that seems to... I didn't like the idea when it was first proposed. I was dead set against it, but it seems to have calmed them down; gives them a mental break, physical break. I have actually had kids come talk to me during that 12-minute break which I found very unusual. Pleasantly surprising.
- I found the kids calmer.

Seven Period Day Teacher Comment:

- About the same.
- I have lower grades than normal this year and I don't know whether it's the character of the class or is it time allotment.

Six Period Day Teacher Comment

- Student achievement is not improving. They are lowering the grades in the grading scale. Lowering the honor society requirements led towards lower student achievement. We've added study skills in the 9th grade because of failure rates.

COSTS AND BENEFITS OF SCHEDULES

Alternating Block Teacher Comments:

- ...we were looking for an opportunity to give the students a chance to take more electives. At one point we had tried just adding another period to the day on a voluntary basis; it didn't seem to work very well, so I think one of the driving forces was the idea that the student had very little opportunity to get in electives by the time they take, particularly college prep kids, course for the higher levels. This was an attempt to give them an opportunity to... [Interviewer -And has this schedule met that expectation?] I think it has.
- I think a lot of kids...I might lose because they would have to take more college prep classes. Also another way to look at it is I think some of my kids have crossed over into another field of elective which, in turn, is going to help him...some of the kids may have gone into a drama class which in turn is going to help with English class which is going to help critical thinking, you know. I think it helps in a lot of ways, not just in the fine arts, but ... class they may not have anything to take; taking an extra year of foreign language if they want to or that extra year of math if they want to.
- I think the nice thing about it is they are taking things that might interest them more in school, whether engineering drafting or key boarding or music or anything, something they might like better than English, etc. That excites them to take their choices. That is a surprise aspect of the block - [she's referring to the opportunity for students to choose their interests]

Alternating Block Student Comments:

- I took something I wanted to take but wouldn't have been able to take.
- I wanted to take something other than academic course so I'm taking a marketing class to learn something other than academics.
- I'm taking photography which I thought was really neat because my schedule wouldn't let me take just any class.

Alternating Block Teacher Comment:

- ...the biggest problem has been with reinforcement. You can do everything you want in class. I've got time to give a little lecture demonstration or an activity based on the topic. I teach a science. Then there's still time to go over example problems related to what they're doing. The next time they look at it is for the next class which in some cases is from Friday to Tuesday and that's a huge jump. They forget how to do everything and go "I don't remember how to do this" and you have to basically go back and reinforce everything anyway. When I had 7th period last, it was simple, give them a topic, they don't know how to do it, pretend they do their home work but they don't know anything and they'll say "I didn't get 1-12 out of 12" so you give it to them again. That's two opportunities and the other group only had 1. If they didn't get it, I go over it again. They may kind of have this barely tenuous grasp of it but then it's gone again because they won't touch it for another two days.

- If you're going to teach on the block the way you have for years when you met every day, you probably get more done meeting every day. We were probably told and I think it's true, that the block had a lot of advantages, but not to be business as usual. I think we probably have not been given the opportunity to explore – we haven't had the training to fully use the block. We've gone to buzz groups, but it's hard, to really develop the block you need a lot of time to plan...our planning is pretty much as usual, maybe less than years ago. I think if you're going to do business as usual, as we've done in the past, you're going to get more done meeting every day.
- The block does allow opportunities. I teach low level and AP, nothing in the middle. Block works great for me because the AP allows me to start something and finish it. With the slow kids, they never did their homework, so now they have to work with me in class, so there's some learning going on whereas before there was none–they'd come in and not have their work. They still don't have their work, but they do when they're with me. I can see some real pitfalls for the average kid.
- The teacher would have the opportunity to reinforce an expectation every day. So every other day, it reinforces one less day they've had the pressure. It's really the pressure the teacher can bring to bear of meeting every day which puts the responsibility on the teacher putting pressure on, and students responding to it, as opposed to the student taking the responsibility.
- I think they have to do more work on their own. I don't know that this has given them...I think it's made my students do more work....the work I felt like I should have been doing.

Semester Block Teacher Comments:

- It gives them more opportunities to become more well-rounded individuals and I think that's true no matter how smart they are.
- I think that's interesting because, and I haven't developed this thought, but somebody told me that what's happening is people are becoming much more specific in what they do, and I agree, I think being well-rounded.
- ... some courses aren't offered both semesters. Single periods. Certain classes have conflicts galore. So it does kind of defeat the purpose... and some of the electives are jam-packed.
- [First teacher]Teachers were not given an opportunity to ask for new electives to add to the program. Sometimes some electives, they were not able to take them. The ones that __________ found because you don't have the flexibility with the 4 period day. When you've got 4 and only 4 periods, and something's offered first period, then you've got to have these things. You can't work things into the kids' schedules and so even though we've got one elective first period, it can't touch it.

  [Second teacher] But that's the same thing with the 6 period day where a student in my class and third day of school, transferred out to take band or chorus or whatever...so the same thing occurs in 6 period days...

  [First teacher] ...but not as often... you have 6 choices instead of 4.

  [Second teacher] Actually we've got 8 choices.

- Well some students are not opting to take the electives. I think we have a lot of kids leaving early, coming late...incredible number of aides roaming the halls. Too many are opting not to do anything. They come late or leave early or they are student aides. ...which really defeats the entire objective. In social studies there were two electives that did not make it and that just absolutely floored us. Because that was one of the major reasons behind the scheduling.
- One of my students finished in the middle of the year and she went on off to VCU to take classes. We have one student whose mail and everything else comes to me. I think he takes one class here and I never know where he is. Anyway, the "unscheduled periods" tables was the busiest in there, just about.

- We might have to reevaluate what our graduation expectations are for the kids; right now, we're sort of trying out this schedule to see if it works and after we see if it works or not, then we'll have new expectations for the kids and new requirements.
- For me, it's been absolutely wonderful. [Performing Arts] I have been allowed to have two year-long courses and those kids have had all kinds of opportunities they didn't have before.

Seven Period Day Teacher Comments:

- There are more opportunities, more electives; we were having some problems with enrollment dropping and the arts, music, and other electives...
- Enrollment in band is going up and we're talking about life skills which were being cut out with the other classes...family life, so obviously enrollment has increased.
- We've noticed an obvious improvement in band and chorus. It works for our school because we're small. With only one elective class offered, if it was offered at the same time as an AP class that they had to take, they had no choice.
- I had a lot of academic-oriented students who were complaining about not having the opportunity to take some of the things that the other students were taking.

Six Period Day Teacher Comments:

- In [ ] fine arts program, there's three times the number of students than in Midlothian; and Midlothian can't compete with the students who are going to school on these kind of schedules any more in fine arts because they can't draw from the big pool.
- We have high summer school rates, because that's where students pick up electives. In looking at this area, we should look at whether the reason for going is to pick up an elective for remediation.

Six period day schedule Teacher Comment:

I think it's an advantage. It's a reinforcement. The best thing about the 6 period day is that it allows teachers to introduce material, review and practice the material. Secondly, the kids meet every day.

1. Teacher characteristics (# years teaching, # years teaching at present school,) teacher working conditions (# of periods a teacher has per day and week, # of preparations, class size, and # of AP/Honors courses a teacher teaches), produced no significant findings in the way teachers answered the survey questions. However, when combined with schedule, the number of periods teachers teach per day was significantly related to teachers taking a team approach to teaching, and whether teachers like the current schedule at their school. For example, the fewer periods teachers teach per day is significantly related to teachers taking a team approach to teaching, and whether they like the schedule their school is currently using.

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APPENDIX D

TABLES: IMPACT OF STRUCTURAL VARIABLES ON THE DEPENDENT VARIABLES

APPENDIX D - TABLE: THE EFFECT OF THE STRUCTURAL VARIABLES, SCHEDULE TYPE AND BLOCK MINUTES, ON THE DEPENDENT VARIABLES

Note[1]: The response options for each survey item are provided under the survey question to assist in the interpretation of means.

Note[2]: Means that are significantly different (at $p<.05$ and $Eta^2 > .05$) have the Eta^2 value given and appear in bold. Means that are not significantly different from each other have an "ns" indicated.

Survey Item	Schedule Type	Mean	Block Minutes	Mean
CURRICULUM				
q7 - I am able to cover the material for my classes in the amount of time provided **1 - Never** **2 - Seldom** **3 - Some of the time** **4 - Most of the Time** **5 - Always**		ns		ns
	6 period	3.78	45 min.	3.66
	7 period	3.66	51 min.	3.77
	Alt. block 1	3.54	85 min.	3.63
	Alt. block 2	3.84	88 min.	3.51
	Alt. block 3	3.40	90 min.	3.78
	Sem. block	3.77	104 min.	3.78
q2q11 - Generally, I am satisfied with the depth of coverage of material in classes **2 - Strongly Agree** **1 - Agree** **0 - Neutral** **-1 - Disagree** **-2 - Strongly Disagree**		ns		ns
	6 period	.87	45 min.	.47
	7 period	.47	51 min.	.87
	Alt. block 1	.49	85 min.	.45
	Alt. block 2	.75	88 min.	.49
	Alt. block 3	.30	90 min.	.70
	Sem. block	.62	104 min.	0.52
q2q34 - Generally, I am able to cover the approved county curriculum in my classes **2 - Strongly Agree** **1 - Agree** **0 - Neutral** **-1 - Disagree** **-2 - Strongly Disagree**		ns		ns
	6 period	.81	45 min.	.57
	7 period	.57	51 min.	.81
	Alt. block 1	.36	85 min.	.53
	Alt. block 2	.77	88 min.	.29
	Alt. block 3	.18	90 min.	.67
	Sem. block	.66	104 min.	.91

INSTRUCTION				
q1 - I use group activities in my classes **1 - Never** **2 - Seldom** **3 - Some of the time** **4 - Most of the Time** **5 - Always**		ns		ns
	6 period	3.08	45 min.	3.10
	7 period	3.10	51 min.	3.01
	Alt. block 1	3.36	85 min.	3.37
	Alt. block 2	3.27	88 min.	3.34
	Alt. block 3	3.42	90 min.	3.41
	Sem. block	3.43	104 min.	3.48
q18 - I use whole class lecture in my classes **1 - Never** **2 - Seldom** **3 - Some of the time** **4 - Most of the Time** **5 - Always**		ns		ns
	6 period	2.97	45 min.	3.02
	7 period	3.02	51 min.	2.97
	Alt. block 1	2.65	85 min.	2.59
	Alt. block 2	2.87	88 min.	2.69
	Alt. block 3	2.76	90 min.	2.74
	Sem. block	2.60	104 min.	2.32
q3 - Most class time is spent in whole class instruction **1 - Never** **2 - Seldom** **3 - Some of the time** **4 - Most of the Time** **5 - Always**		**Eta^2 = .07**		**Eta^2 = .07**
	6 period	**3.44**	45 min.	**3.18**
	7 period	**3.18**	51 min.	**3.44**
	Alt. block 1	**2.67**	85 min.	**2.77**
	Alt. block 2	**3.11**	88 min.	**2.69**
	Alt. block 3	**2.89**	90 min.	**2.95**
	Sem. block	**2.80**	104 min.	**2.48**
q4 - I work with my students in individual study **1 - Never** **2 - Seldom** **3 - Some of the time** **4 - Most of the Time** **5 - Always**		ns		ns
	6 period	3.23	45 min.	3.24
	7 period	3.24	51 min.	3.23
	Alt. block 1	3.15	85 min.	3.13
	Alt. block 2	3.39	88 min.	3.12
	Alt. block 3	3.49	90 min.	3.45
	Sem. block	3.27	104 min.	3.41

MATERIALS

q13 - I use textbooks as a primary instructional tool 1 - Never 2 - Seldom 3 - Some of the time 4 - Most of the Time 5 - Always		ns		ns
	6 period	3.49	45 min.	3.31
	7 period	3.31	51 min.	3.49
	Alt. block 1	3.14	85 min.	3.27
	Alt. block 2	3.34	88 min.	3.13
	Alt. block 3	3.38	90 min.	3.37
	Sem. block	3.32	104 min.	3.26

q14 - I use a variety of instructional materials other than textbooks in my classes 1 - Never 2 - Seldom 3 - Some of the time 4 - Most of the Time 5 - Always		ns		ns
	6 period	3.79	45 min.	3.67
	7 period	3.67	51 min.	3.79
	Alt. block 1	3.78	85 min.	3.73
	Alt. block 2	3.71	88 min.	3.80
	Alt. block 3	4.00	90 min.	3.79
	Sem. block	3.73	104 min.	3.65

q19 - I use worksheets in my classes 1 - Never 2 - Seldom 3 - Some of the time 4 - Most of the Time 5 - Always		ns		ns
	6 period	2.95	45 min.	3.14
	7 period	3.14	51 min.	2.95
	Alt. block 1	3.02	85 min.	2.99
	Alt. block 2	3.29	88 min.	2.99
	Alt. block 3	3.21	90 min.	3.19
	Sem. block	3.03	104 min.	3.23

q20 - I require students to use multiple sources of information to answer project-based problems 1 - Never 2 - Seldom 3 - Some of the time 4 - Most of the Time 5 - Always		ns		ns
	6 period	3.08	45 min.	3.36
	7 period	3.36	51 min.	3.08
	Alt. block 1	3.23	85 min.	3.28
	Alt. block 2	3.09	88 min.	3.33
	Alt. block 3	3.63	90 min.	3.34
	Sem. block	3.31	104 min.	3.30

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ASSESSMENT				
q15 - I use portfolios to assess my students' performance **1 - Never** **2 - Seldom** **3 - Some of the time** **4 - Most of the Time** **5 - Always**		ns		ns
	6 period	1.96	45 min.	2.22
	7 period	2.22	51 min.	1.96
	Alt. block 1	2.03	85 min.	2.24
	Alt. block 2	1.94	88 min.	2.07
	Alt. block 3	2.76	90 min.	2.32
	Sem. block	2.29	104 min.	1.71
q16 - I use essay questions to assess my students' performance **1 - Never** **2 - Seldom** **3 - Some of the time** **4 - Most of the Time** **5 - Always**		ns		ns
	6 period	2.78	45 min.	2.99
	7 period	2.99	51 min.	2.78
	Alt. block 1	2.89	85 min.	3.08
	Alt. block 2	2.77	88 min.	2.89
	Alt. block 3	3.03	90 min.	2.88
	Sem. block	3.00	104 min.	2.86
q17 - I use multiple- choice and true-false questions to assess my students' performance **1 - Never** **2 - Seldom** **3 - Some of the time** **4 - Most of the Time** **5 - Always**		ns		ns
	6 period	3.08	45 min.	2.82
	7 period	2.82	51 min.	3.08
	Alt. block 1	2.91	85 min.	2.96
	Alt. block 2	3.06	88 min.	2.87
	Alt. block 3	3.09	90 min.	3.04
	Sem. block	2.98	104 min.	3.18
q30 - I use rubrics (specific criteria) for scoring student assignments **1 - Never** **2 - Seldom** **3 - Some of the time** **4 - Most of the Time** **5 - Always**		ns		ns
	6 period	3.95	45 min.	3.40
	7 period	3.40	51 min.	3.95
	Alt. block 1	3.58	85 min.	3.57
	Alt. block 2	3.31	88 min.	3.57
	Alt. block 3	3.08	90 min.	3.10
	Sem. block	3.33	104 min.	3.71

TEACHER WORK BEHAVIOR				
q29 - I use learning technologies for developing instructional materials, lesson planning, and/or grading **1 - Never** **2 - Seldom** **3 - Some of the time** **4 - Most of the Time** **5 - Always**		ns		ns
	6 period	3.70	45 min.	3.56
	7 period	3.56	51 min.	3.70
	Alt. block 1	3.48	85 min.	3.66
	Alt. block 2	3.43	88 min.	3.46
	Alt. block 3	3.81	90 min.	3.57
	Sem. block	3.61	104 min.	3.60
q32 - Teachers at my school form informal support/discussion groups to exchange ideas and resources **1 - Never** **2 - Seldom** **3 - Some of the time** **4 - Most of the Time** **5 - Always**		ns		ns
	6 period	3.11	45 min.	2.78
	7 period	2.78	51 min.	3.11
	Alt. block 1	3.04	85 min.	3.12
	Alt. block 2	3.34	88 min.	3.02
	Alt. block 3	2.91	90 min.	3.16
	Sem. block	3.14	104 min.	3.22
q34 - Teachers at my high school take a team approach to teaching **1 - Never** **2 - Seldom** **3 - Some of the time** **4 - Most of the Time** **5 - Always**		**$Eta^2 = .05$**		**$Eta^2 = .05$**
	6 period	**2.30**	45 min.	**2.30**
	7 period	**2.29**	51 min.	**2.30**
	Alt. block 1	**2.83**	85 min.	**2.64**
	Alt. block 2	**2.74**	88 min.	**2.86**
	Alt. block 3	**2.83**	90 min.	**2.72**
	Sem. block	**2.65**	104 min.	**2.57**

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q35 - Teachers at my high school work to integrate instruction across subject areas **1 - Never** **2 - Seldom** **3 - Some of the time** **4 - Most of the Time** **5 - Always**		ns		ns
	6 period	2.59	45 min.	2.62
	7 period	2.62	51 min.	2.59
	Alt. block 1	2.84	85 min.	2.72
	Alt. block 2	2.79	88 min.	2.84
	Alt. block 3	2.84	90 min.	2.80
	Sem. block	2.74	104 min.	2.81
q2q30 - Generally, I am satisfied with the amount of time I have for lesson planning, correcting, and grading **2 - Strongly Agree** **1 - Agree** **0 - Neutral** **-1 - Disagree** **-2 - Strongly Disagree**		ns		**Eta^2 = .09**
	6 period	-.45	45 min.	**-.13**
	7 period	-.13	51 min.	**-.45**
	Alt. block 1	-.03	85 min.	**-.36**
	Alt. block 2	.66	88 min.	**-.01**
	Alt. block 3	.19	90 min.	**.55**
	Sem. block	.05	104 min.	**-.26**
STUDENT BEHAVIOR				
q2q9 - Generally, I am satisfied with student achievement this year as reflected in their grades **2 - Strongly Agree** **1 - Agree** **0 - Neutral** **-1 - Disagree** **-2 - Strongly Disagree**		**Eta^2 = .09**		ns
	6 period	**.66**	45 min.	.38
	7 period	**.38**	51 min.	.66
	Alt. block 1	**.44**	85 min.	.86
	Alt. block 2	**.52**	88 min.	.41
	Alt. block 3	**-.13**	90 min.	.51
	Sem. block	**.87**	104 min.	.70

q2q18 - Generally, my students are gaining an in-depth understanding of the subject matter **2 - Strongly Agree** **1 - Agree** **0 - Neutral** **-1 - Disagree** **-2 - Strongly Disagree**		ns		ns
	6 period	.64	45 min.	.34
	7 period	.34	51 min.	.64
	Alt. block 1	.49	85 min.	.43
	Alt. block 2	.67	88 min.	.49
	Alt. block 3	.23	90 min.	.63
	Sem. block	.59	104 min.	.45
q2q21 - Generally, my students are learning as much as they should be this academic year **2 - Strongly Agree** **1 - Agree** **0 - Neutral** **-1 - Disagree** **-2 - Strongly Disagree**		ns		ns
	6 period	.70	45 min.	.34
	7 period	.34	51 min.	.70
	Alt. block 1	.30	85 min.	.40
	Alt. block 2	.44	88 min.	.28
	Alt. block 3	-.11	90 min.	.44
	Sem. block	.54	104 min.	.44
q2q32 - Generally, I believe attendance in my classes is better this year than three years ago **2 - Strongly Agree** **1 - Agree** **0 - Neutral** **-1 - Disagree** **-2 - Strongly Disagree**		**Eta^2 = .16**		**Eta^2 = .08**
	6 period	**.29**	45 min.	**-.19**
	7 period	**-.19**	51 min.	**.29**
	Alt. block 1	**-.25**	85 min.	**.50**
	Alt. block 2	**.13**	88 min.	**-.20**
	Alt. block 3	**-.65**	90 min.	**.28**
	Sem. block	**.66**	104 min.	**-.67**
q2q33 - Generally, I have more discipline problems this year than last year **2 - Strongly Agree** **1 - Agree** **0 - Neutral** **-1 - Disagree** **-2 - Strongly Disagree**		ns		ns
	6 period	-.69	45 min.	-.52
	7 period	-.52	51 min.	-.69
	Alt. block 1	-.68	85 min.	-.80
	Alt. block 2	-.58	88 min.	-.71
	Alt. block 3	-.23	90 min.	-.63
	Sem. block	-.84	104 min.	-.50

SATISFACTION				
q3q5 - I like the current daily schedule of classes at my school: **2 - Strongly Agree** **1 - Agree** **0 - Neutral** **-1 - Disagree** **-2 - Strongly Disagree**		**Eta^2 = .05**		ns
	6 period	**.92**	45 min.	.87
	7 period	**.87**	51 min.	.92
	Alt. block 1	**.95**	85 min.	1.01
	Alt. block 2	**1.20**	88 min.	1.06
	Alt. block 3	**.28**	90 min.	1.07
	Sem. block	**1.21**	104 min.	.00
q3q6 - Overall, I would rate my experience of teaching under the current schedule as: **1 - Excellent** **2 - Good** **3 - Fair** **4 - Poor** **5 - Terrible**		ns		ns
	6 period	4.35	45 min.	4.22
	7 period	4.22	51 min.	4.35
	Alt. block 1	4.15	85 min.	4.18
	Alt. block 2	4.27	88 min.	4.19
	Alt. block 3	3.94	90 min.	4.25
	Sem. block	4.28	104 min.	3.87
q3q7 - Considering all your impressions about the current schedule at your high school, select a response: **1 - I would like to remain in the current schedule** **2 - I would like to teach under a different schedule**		**Eta^2 = .06**		ns
	6 period	**1.27**	45 min.	1.31
	7 period	**1.31**	51 min.	1.27
	Alt. block 1	**1.27**	85 min.	1.20
	Alt. block 2	**1.26**	88 min.	1.23
	Alt. block 3	**1.55**	90 min.	1.23
	Sem. block	**1.14**	104 min.	1.65

APPENDIX E

TABLES: IMPACT OF SUBJECT AREA ON THE DEPENDENT VARIABLES

APPENDIX E - TABLE - THE EFFECT OF SCHEDULE ON DEPENDENT VARIABLES, FOR EACH SUBJECT AREA

Note[1]: An abbreviated form of the response options for each survey item is provided under the survey question to assist in the interpretation of means (the full set of response options are given in the table in Appendix C, or you may refer to the Teacher Survey in Appendix F).

Note[2]: Means that are significantly different (at $p<.05$ and $Eta^2 >.05$) have the Eta^2 value given. Means that are not significantly different have an "ns" indicated.

* indicates that N = 0 for this cell; this survey item was not answered by any teachers in the particular subject area in schools of the particular schedule type.

Survey Item	Sched.	English	For. Lang.	Math	Science	Soc. Stud.	Art	Perf. Art	Home Ec/ Ind. Arts/ Hlth/ Drvr Ed.	Phys. Ed.	Vocational & Computer Ed.	Spec. Ed
CURRICULUM												
q7 - I am able to cover the material for my classes in the amount of time provided **1 - Never** **5 - Always**	**Eta^2→**	.08	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
	6 pd.	4.00	4.17	3.70	3.44	3.67	4.00	4.00	3.67	4.00	4.33	3.60
	7 pd.	3.93	3.75	3.43	3.30	3.89	3.50	3.67	3.80	4.00	3.55	3.40
	AB 1	2.83	3.48	3.18	3.62	3.54	4.40	4.33	3.90	4.17	3.94	4.10
	AB 2	4.09	3.00	4.00	3.90	3.63	4.50	4.00	*	5.00	3.67	3.75
	AB 3	3.00	3.40	3.00	4.00	2.75	4.00	*	4.00	4.00	3.29	3.40
	SemB	3.22	3.40	3.72	3.85	3.60	4.00	4.25	4.29	4.20	4.24	3.83

q2q11 - Generally, I am satisfied with the depth of coverage of material in my classes. 2 - Strongly Agree -2 - Strongly Disagree	**Eta²→**	.11	ns	.13	ns	ns	ns	ns	ns	ns	.20	ns
	6 pd.	1.18	.67	.70	1.22	.67	2.00	1.00	1.00	.00	1.33	.20
	7 pd.	.80	.25	.23	.10	.44	.00	.67	.20	1.00	.58	.60
	AB 1	.43	.57	.23	.38	.40	1.00	1.33	.80	.83	.33	.60
	AB 2	1.00	.00	1.27	.50	.63	1.00	1.50	•	-1.00	1.00	.75
	AB 3	.43	.00	.00	.50	.25	.00	•	1.00	•	.29	.40
	SemB	.06	-.16	.62	.70	.56	.80	.50	.86	.80	.16	.94
q2q34 - Generally, I am able to cover the approved county curriculum in my classes 2 - Strongly Agree -2 - Strongly Disagree	**Eta²→**	.12	.21	.18	ns	ns	ns	ns	ns	ns	ns	ns
	6 pd.	1.09	1.5	.50	.22	.83	1.00	1.00	.50	1.00	1.33	.80
	7 pd.	1.00	.50	.43	.00	.78	.00	.00	.60	1.0	.67	.75
	AB 1	.06	.57	.36	.25	-.20	1.20	1.00	.60	.83	.59	.50
	AB 2	.45	.17	1.37	.50	1.13	1.50	1.25	•	1.00	1.17	.00
	AB 3	-.17	.00	-1.0	.78	.00	1.00	•	1.00	.00	.00	.20
	SemB	.40	-.32	.55	.92	.72	1.00	1.00	1.29	.80	1.10	.75
INSTRUCTION												
q1 - I use group activities in my classes 1 - Never 5 - Always	**Eta²→**	ns	ns	.23	.22	ns	ns	ns	ns	ns	ns	ns
	6 pd.	3.00	3.50	2.50	3.33	3.17	3.00	5.00	3.17	3.00	3.00	3.00
	7 pd.	2.80	3.50	2.71	3.00	2.78	3.50	4.00	3.20	3.00	3.33	3.20
	AB 1	3.26	3.57	3.05	3.55	3.19	3.00	4.22	3.60	3.33	2.89	3.45
	AB 2	2.91	3.14	3.18	3.30	3.25	2.50	4.50	•	3.00	3.17	3.50
	AB 3	2.86	3.20	3.60	4.00	3.25	3.00	•	3.00	3.00	3.43	3.80
	SemB	3.17	3.67	3.78	3.93	3.12	2.60	4.25	3.71	3.80	3.21	3.17

q18 - I use whole class lecture in my classes **1 - Never** **5 - Always**	**Eta^2→**	.14	ns	.13	ns	ns	ns	ns	ns	ns	ns	ns
	6 pd.	3.18	2.33	3.60	2.89	3.33	3.00	1.00	2.67	3.00	3.33	2.60
	7 pd.	3.20	2.14	3.36	3.10	3.44	2.50	2.00	2.80	3.00	2.67	2.80
	AB 1	2.51	2.45	2.91	2.79	2.80	3.00	2.13	2.70	2.83	2.88	2.27
	AB 2	3.00	2.83	3.18	3.10	2.63	2.00	2.50	•	2.00	3.33	2.75
	AB 3	2.71	3.00	2.80	3.00	3.00	1.67	•	3.00	•	2.57	2.40
	SemB	2.53	2.37	2.59	2.58	2.88	2.00	3.00	2.43	2.90	2.74	2.56
q3 - Most class time is spent in whole class instruction **1 - Never** **5 - Always**	**Eta^2→**	.25	ns	.23	.12	.14	ns	ns	ns	ns	ns	ns
	6 pd.	3.64	2.83	3.80	3.00	4.00	3.00	4.00	3.33	4.00	3.67	2.60
	7 pd.	3.67	2.29	3.15	3.10	3.56	2.50	3.33	3.20	3.00	2.92	3.00
	AB 1	2.54	2.35	3.14	2.46	2.81	2.60	3.00	2.78	2.80	2.83	2.27
	AB 2	3.36	3.14	3.09	2.80	3.25	2.50	4.00	•	2.00	3.67	2.50
	AB 3	3.50	2.80	2.80	2.22	3.25	2.33	•	3.00	2.00	3.14	2.80
	SemB	3.03	2.81	2.41	2.50	3.12	2.20	4.00	2.71	2.50	3.00	2.89
q4 - I work with my students in individual study **1 - Never** **5 - Always**	**Eta^2→**	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
	6 pd.	3.36	3.17	3.40	3.11	2.67	4.00	4.00	2.50	2.00	3.33	4.60
	7 pd.	3.20	3.25	3.36	3.00	2.56	5.00	2.33	4.00	3.00	3.33	4.40
	AB 1	3.41	3.17	3.24	2.90	2.92	3.80	3.22	3.00	3.00	3.35	3.45
	AB 2	2.91	3.29	3.91	3.30	3.13	4.50	2.75	•	3.00	3.17	4.50
	AB 3	3.29	3.40	3.80	3.33	3.25	2.67	•	3.00	4.00	3.86	4.00
	SemB	2.97	2.85	3.55	3.26	3.12	4.00	2.50	3.29	3.00	3.63	3.50

MATERIALS												
q13 - I use textbooks as a primary instructional tool **1 - Never** **5 - Always**	**Eta^2→**	.11	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
	6 pd.	3.73	3.50	4.00	3.38	4.00	2.00	3.00	2.67	3.00	3.67	2.60
	7 pd.	3.33	3.88	3.79	3.40	3.50	2.00	2.00	2.80	3.00	3.00	3.80
	AB 1	3.17	3.61	3.91	2.97	3.04	1.80	1.44	3.10	2.83	3.11	3.20
	AB 2	3.73	3.43	3.64	3.40	3.86	1.50	2.75	•	4.00	3.20	2.50
	AB 3	3.57	3.80	4.00	2.89	3.50	2.67	•	3.00	3.00	3.71	2.80
	SemB	3.75	3.76	3.79	3.00	3.38	2.20	2.00	3.00	2.80	3.58	2.89
q14 - I use a variety of instructional materials other than textbooks in my classes **1 - Never** **5 - Always**	**Eta^2→**	.14	.21	.14	ns	ns	ns	ns	ns	ns	ns	ns
	6 pd.	4.09	4.33	3.10	3.67	3.50	4.00	3.00	3.83	3.00	4.00	4.40
	7 pd.	3.60	3.63	2.69	3.70	3.38	4.50	4.00	4.40	4.00	4.00	4.40
	AB 1	3.94	3.87	3.00	3.72	3.92	4.60	4.00	3.70	3.50	3.90	4.00
	AB 2	3.18	4.29	3.27	3.80	3.88	4.50	3.75	•	3.00	4.00	4.25
	AB 3	3.86	3.60	4.00	4.33	4.00	4.00	•	4.00	4.00	3.57	4.20
	SemB	3.40	3.19	3.21	4.11	3.77	4.20	4.25	4.43	3.90	3.79	3.94
q19 - I use worksheets in my classes **1 - Never** **5 - Always**	**Eta^2→**	.13	ns	.12	ns	ns	.64	ns	ns	ns	ns	ns
	6 pd.	2.09	3.00	3.00	3.00	2.83	1.00	4.00	3.17	3.00	3.33	3.00
	7 pd.	3.00	3.38	2.79	3.20	3.11	2.00	3.00	4.00	3.00	3.50	3.20
	AB 1	2.97	3.23	3.00	2.93	3.00	3.40	2.13	3.33	3.00	3.00	3.36
	AB 2	3.20	3.43	3.69	3.10	3.38	3.00	2.75	•	3.00	3.33	3.50
	AB 3	2.43	3.40	2.80	3.13	3.63	3.33	•	3.00	•	3.14	3.60
	SemB	2.50	3.16	3.14	3.15	3.12	1.80	2.50	3.14	3.10	3.50	3.11

q20 - I require students to use multiple sources of information to answer project-based problems **1 - Never** **5 - Always**	**Eta²→**	ns	ns	ns	ns	ns	ns	ns	ns	.47	ns	ns
	6 pd.	3.64	3.50	1.89	3.50	3.00	4.00	3.00	3.33	1.00	3.67	2.80
	7 pd.	3.67	3.33	2.57	3.60	3.56	5.00	4.50	3.60	3.67	3.27	3.40
	AB 1	3.86	2.90	2.43	3.36	3.73	3.60	3.14	3.22	3.00	3.12	2.67
	AB 2	3.78	2.33	2.89	3.40	3.00	3.00	3.50	*	3.00	2.50	3.00
	AB 3	3.57	3.50	2.50	3.89	4.00	3.67	*	3.00	*	3.29	4.00
	SemB	3.53	3.40	2.41	3.46	3.65	4.00	2.25	3.86	3.70	3.27	2.72
ASSESSMENT												
q15 - I use portfolios to assess my students' performance **1 - Never** **5 - Always**	**Eta²→**	ns	.17	ns	.21	ns	ns	ns	.95	ns	.17	ns
	6 pd.	3.27	1.50	1.10	1.14	1.50	4.00	1.00	1.50	1.00	3.00	2.80
	7 pd.	2.93	1.50	1.31	1.40	1.56	3.50	2.00	3.00	2.33	2.64	3.67
	AB 1	2.80	1.55	1.24	1.61	1.86	2.80	1.75	2.20	2.17	2.00	2.11
	AB 2	2.09	1.71	1.36	1.50	1.28	3.50	2.75	*	2.00	1.50	3.00
	AB 3	2.86	3.00	1.60	3.11	2.00	3.00	*	2.00	2.00	3.43	3.40
	SemB	3.03	1.52	1.21	1.88	1.80	4.20	1.25	2.67	2.11	2.97	2.61
q16 - I use essay questions to assess my students' performance **1 - Never** **5 - Always**	**Eta²→**	ns	ns	.15	ns	ns	ns	ns	.70	ns	ns	ns
	6 pd.	4.45	3.00	1.67	2.56	3.00	1.00	1.00	2.33	1.00	2.67	2.40
	7 pd.	4.07	2.88	1.79	3.30	3.56	2.50	2.33	3.40	3.00	2.59	2.60
	AB 1	4.03	2.50	1.77	3.10	3.46	2.20	2.63	2.50	2.50	2.44	2.10
	AB 2	4.36	2.29	1.64	3.40	3.13	1.50	2.75	*	3.00	2.17	2.50
	AB 3	3.57	2.60	3.20	3.11	3.50	1.67	*	2.00	3.00	3.14	2.60
	SemB	3.86	3.10	1.97	3.07	3.65	2.40	1.50	2.43	2.70	2.76	2.94

q17 - I use multiple-choice and true-false questions to assess my students' performance **1 - Never** **5 - Always**	**Eta^2→**	ns	ns	ns	.15	ns	ns	ns	.36	ns	ns	ns
	6 pd.	2.91	2.83	2.67	3.67	3.67	2.00	3.00	3.50	3.00	3.00	3.20
	7 pd.	2.67	2.14	2.29	3.50	3.33	2.50	2.67	3.40	3.00	2.75	3.00
	AB 1	2.54	2.57	2.55	3.24	2.96	3.20	2.25	3.80	3.67	3.33	2.80
	AB 2	3.10	2.71	2.45	4.00	3.50	3.00	2.00	•	3.00	3.50	3.00
	AB 3	3.14	2.80	2.60	3.22	3.25	2.33	•	2.00	•	3.29	3.00
	SemB	2.88	2.37	2.28	2.27	3.28	2.80	1.75	3.00	3.50	3.28	3.00
q30 - I use rubrics (specific criteria) for scoring student assignments **1 - Never** **5 - Always**	**Eta^2→**	ns	ns	ns	ns	ns	ns	ns	.37	ns	ns	ns
	6 pd.	4.36	3.17	4.56	3.89	4.20	4.00	5.00	4.80	4.00	3.33	2.60
	7 pd.	3.60	3.67	3.00	3.20	3.11	4.00	4.67	3.40	2.67	3.64	3.40
	AB 1	3.86	3.41	3.91	3.72	3.84	3.25	2.67	3.33	3.33	4.06	2.73
	AB 2	3.70	3.00	3.54	3.78	3.71	1.00	2.75	•	•	3.00	3.25
	AB 3	3.17	2.80	3.20	3.38	3.25	3.50	•	3.00	•	2.57	2.80
	SemB	3.57	3.63	3.52	3.78	3.36	3.20	2.67	2.29	2.80	3.30	3.11
TCHR. WORK BEHAVIOR												
q29 - I use learning technologies to develop instructional materials, lesson planning, and/or grading **1 - Never** **5 - Always**	**Eta^2→**	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
	6 pd.	3.45	4.40	3.80	4.00	4.20	3.00	3.00	3.67	4.00	3.67	2.60
	7 pd.	3.71	3.86	3.71	3.20	3.22	3.50	3.00	3.20	3.67	4.08	3.00
	AB 1	3.42	3.41	3.55	3.54	3.46	3.80	3.22	3.50	3.33	3.67	3.55
	AB 2	3.44	2.83	4.20	3.40	2.85	•	4.33	•	3.00	3.40	2.67
	AB 3	4.00	4.00	4.00	4.00	3.50	3.50	•	5.00	•	3.57	3.60
	SemB	3.60	3.26	3.68	3.84	3.41	3.25	3.50	4.00	3.40	3.75	3.65

q32 - Teachers at my school form informal support/discussion groups to exchange ideas and resources **1 - Never** **5 - Always**	**Eta² →**	ns	.20	ns	.13	ns	ns	ns	ns	ns	ns	ns
	6 pd.	2.91	3.83	3.10	2.67	3.67	3.00	3.00	2.80	3.00	3.33	3.40
	7 pd.	2.87	3.00	2.62	2.10	3.44	2.00	2.00	3.00	2.33	3.00	3.00
	AB 1	2.74	3.73	3.27	3.14	2.88	3.20	2.00	3.00	2.67	3.06	3.00
	AB 2	3.50	3.17	3.45	3.40	3.50	3.00	3.50	•	3.00	3.33	3.50
	AB 3	2.86	2.00	2.80	3.11	3.13	2.00	•	1.00	•	2.86	3.80
	SemB	2.79	3.11	3.28	3.26	3.62	2.60	2.33	3.00	2.80	3.19	3.17
q34 - Teachers at my high school take a team approach to teaching **1 - Never** **5 - Always**	**Eta² →**	ns	ns	ns	.15	ns	ns	ns	ns	.47	ns	ns
	6 pd.	1.91	2.50	2.44	1.89	2.17	1.00	3.00	2.50	4.00	3.67	2.75
	7 pd.	2.07	2.00	2.00	2.00	2.13	2.50	2.33	3.20	4.00	2.58	2.40
	AB 1	2.46	2.86	2.64	3.07	2.85	3.25	2.67	3.00	3.00	2.94	3.10
	AB 2	2.40	2.50	2.73	2.25	2.50	2.00	3.00	•	4.00	2.67	3.75
	AB 3	2.50	2.00	3.40	2.78	2.86	2.67	•	2.00	•	3.00	3.20
	SemB	2.22	2.65	4.42	2.65	2.75	2.25	2.00	3.00	2.50	3.03	3.00
q35 - Teachers at my high school work to integrate instruction across subject areas **1 - Never** **5 - Always**	**Eta² →**	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
	6 pd.	2.70	2.33	2.56	2.97	2.83	3.00	3.00	2.33	2.00	3.33	2.33
	7 pd.	2.40	3.00	2.31	2.20	2.67	2.50	2.67	3.00	3.67	3.00	2.80
	AB 1	2.46	3.00	2.73	3.03	2.96	3.20	2.56	3.20	3.00	2.65	2.89
	AB 2	2.44	2.60	2.81	2.70	2.88	2.00	3.00	•	3.00	2.67	3.25
	AB 3	3.00	2.40	3.20	2.22	2.57	2.67	•	2.00	•	3.14	3.60
	SemB	2.53	2.56	2.45	2.59	2.96	2.60	2.50	3.00	2.67	3.03	3.06

q2q30 - I am satisfied with the amount of time I have for lesson planning, correcting, and grading **2 - Strongly Agree** **-2 - Strongly Disagree**	**Eta^2→**	ns	ns	.20	.12	ns	ns	ns	.67	ns	ns	ns
	6 pd.	.00	-1.00	-.70	-1.11	-.25	1.00	1.00	.17	.00	-1.00	-.40
	7 pd.	.13	-.13	-.36	-.40	.00	-1.00	-.33	-.40	.33	-.17	.00
	AB 1	-.53	-.04	.18	-.24	.08	.40	-.11	.60	.83	-.11	.45
	AB 2	.18	.14	1.09	.80	.75	1.50	.50	*	2.00	.17	1.00
	AB 3	-.14	.40	.40	.00	.50	.67	*	-1.00	1.00	.17	-.40
	SemB	-.77	-.67	.45	.04	.11	.80	-.50	.00	.60	.53	.33
STUDENT BEHAVIOR												
q2q9 - Generally, I am satisfied with student achievement this year as reflected in their grades **2 - Strongly Agree** **-2 - Strongly Disagree**	**Eta^2→**	.11	ns	.23	.12	.24	ns	ns	ns	ns	.22	ns
	6 pd.	.18	.17	1.00	1.00	1.00	2.00	1.00	.83	.00	1.00	.00
	7 pd.	.40	.25	.07	.00	.88	.50	1.00	.25	.67	.17	1.00
	AB 1	.06	.48	.32	.31	.46	1.40	1.33	.60	.83	.56	.30
	AB 2	.70	-.57	.45	.60	.38	1.00	1.25	*	1.00	.33	1.00
	AB 3	-.86	-.20	-.80	.22	-.13	.67	*	1.00	*	.14	.20
	SemB	.50	.31	.85	.96	1.12	1.40	.50	.86	.80	1.19	.89
q2q18 - My students are gaining an in-depth understanding of the subject matter **2 - Strongly Agree** **-2 - Strongly Disagree**	**Eta^2→**	ns	ns	.19	ns	ns	.67	ns	ns	ns	ns	ns
	6 pd.	.55	.33	.67	.89	.40	2.00	1.00	.67	.00	1.33	.00
	7 pd.	.47	.38	-.29	.30	.14	.00	.67	.40	.67	.25	.80
	AB 1	.31	.39	.18	.29	.50	1.60	1.11	.90	1.00	.53	.27
	AB 2	.64	.00	.82	.70	.63	1.00	.75	*	1.00	1.00	.50
	AB 3	-.29	.20	-.20	.78	-.13	-.50	*	1.00	.00	.50	.60
	SemB	.11	-.05	.59	.54	.88	.80	1.00	.71	.90	1.00	.61

q2q21 - Generally, my students are learning as much as they should be this academic year **2 - Strongly Agree** **-2 - Strongly Disagree**	**Eta^2→**	ns	ns	.13	ns	.20	ns	ns	ns	ns	.20	ns
	6 pd.	.63	.00	.67	.89	.67	2.00	2.00	1.00	1.00	1.00	.40
	7 pd.	.33	.50	.44	-.10	.44	.00	.67	.20	.67	.25	.40
	AB 1	-.09	.30	-.09	.21	.27	1.40	1.11	.60	1.00	.28	.55
	AB 2	.70	-.71	.73	.40	.57	1.00	.75	*	1.00	.83	-.25
	AB 3	.00	-.40	-.40	.38	-.75	.00	*	1.00	.00	-.17	-.20
	SemB	-.03	-.15	.45	.62	.88	1.00	.00	.71	.90	1.06	.61
q2q32 - Generally, I believe attendance in my classes is better this year than 3 years ago **2 - Strongly Agree** **-2 - Strongly Disagree**	**Eta^2→**	.11	.20	.29	.28	ns	ns	ns	ns	ns	.33	.35
	6 pd.	.18	.50	.44	.11	.60	.00	1.00	.00	1.00	1.00	-.25
	7 pd.	.00	.33	-.38	-.70	-.43	-1.00	-1.00	.00	-.67	.00	.50
	AB 1	-.43	-.17	-.85	-.28	-.17	.50	.75	-.11	.33	-.44	-.27
	AB 2	.22	-1.33	.10	.57	.33	.00	1.00	*	.00	.50	.33
	AB 3	-.33	-.50	-1.0	-.89	-.57	-1.00	*	.00	.00	-1.00	.00
	SemB	.42	.11	.50	.79	.50	.75	.67	1.20	1.14	1.00	.88
q2q33 - Generally, I have more discipline problems this year than last year **2 - Strongly Agree** **-2 - Strongly Disagree**	**Eta^2→**	ns	ns	ns	ns	ns	ns	ns	ns	.68	ns	.26
	6 pd.	-.45	.00	-1.22	-.89	-.67	.00	-1.00	-1.00	1.00	-1.67	.00
	7 pd.	-.53	-1.33	-.78	-.30	-.33	1.00	.50	-.80	-1.33	-.25	.25
	AB 1	.91	-.74	-.24	-.58	-.69	-2.00	-.71	-.89	-.67	-.56	-.72
	AB 2	-.45	.43	-.78	-1.33	-.86	.00	-.75	*	-2.00	.00	.00
	AB 3	-1.14	-.40	.00	-.67	.00	.67	*	.00	2.00	-.33	.40
	SemB	-.71	-.53	-.79	-.92	-.84	-.50	-.33	-1.50	-1.13	-.94	-.94

SATISFACTION												
q3q5 - I like the current daily schedule of classes at my school: 2 - Strongly Agree -2 - Strongly Disagree	**Eta^2→**	.12	.32	.24	ns	ns	.76	.62	.47	ns	.17	.39
	6 pd.	1.45	1.50	.70	1.56	1.50	-2.00	-1.00	.50	.00	1.67	-.40
	7 pd.	1.13	1.25	.64	.90	1.11	.00	2.00	.00	1.00	.67	.80
	AB 1	.74	.57	.82	.72	1.12	2.00	1.78	1.40	1.20	.72	1.20
	AB 2	1.73	-1.0	1.27	1.80	1.38	2.00	1.25	•	2.00	1.00	1.33
	AB 3	.14	-.20	-.80	.78	.28	.00	•	1.00	2.00	.67	-.40
	SemB	.66	.71	1.38	1.22	1.28	1.60	-.25	1.86	1.70	1.55	1.34
q3q6 - Overall, I would rate my experience of teaching under the current schedule as: 1 - Excellent 5 - Terrible	**Eta^2→**	.15	.28	ns	ns	ns	.77	ns	ns	ns	ns	ns
	6 pd.	4.55	4.50	4.20	4.55	4.50	4.00	5.00	4.33	4.00	4.33	3.60
	7 pd.	4.57	4.43	4.14	4.20	4.11	4.00	4.33	4.40	4.33	4.08	4.20
	AB 1	3.77	4.14	3.95	4.04	4.29	5.00	4.67	4.30	4.50	4.18	4.27
	AB 2	4.64	3.00	4.45	4.50	4.13	5.00	4.25	•	5.00	4.50	4.00
	AB 3	3.86	3.60	3.80	4.33	3.63	3.33	•	4.00	4.00	4.17	3.80
	SemB	3.88	3.90	4.28	4.41	4.32	4.40	3.25	4.57	4.60	4.54	4.33
q3q7 - Considering all your impressions about the schedule, select a response: 1 - remain w/ current sched. 2 - teach w/ diff. sched.	**Eta^2→**	ns	.34	.21	.14	ns	.63	.75	ns	ns	.21	.49
	6 pd.	1.10	1.00	1.33	1.00	1.33	2.00	2.00	1.50	1.00	1.00	2.00
	7 pd.	1.18	1.00	1.50	1.17	1.14	2.00	1.00	1.50	1.00	1.33	1.25
	AB 1	1.39	1.38	1.32	1.32	1.24	1.00	1.11	1.10	1.00	1.31	1.33
	AB 2	1.09	2.00	1.30	1.00	1.25	1.00	1.00	•	1.00	1.33	1.50
	AB 3	1.57	1.75	1.80	1.50	1.25	1.50	•	1.00	1.00	1.50	1.80
	SemB	1.31	1.38	1.01	1.12	1.05	1.20	2.00	1.00	1.00	1.00	1.00

APPENDIX F

CORRELATIONS OF TEACHER AND STUDENT RESPONSES

APPENDIX F- TABLE: CORRELATIONS OF TEACHER AND STUDENT RESPONSES

This appendix reports the correlations between the responses of students and the responses of teachers on the dependent variables. These analyses were done for a total of 18 dependent variables; nine of the usual 27 questions were not answered by students.

Note[1]: Correlations that are significant at p>.05 and have an effect size of at least .05 are considered significant for this study and given in the table below (non-significant correlations have an "ns" given). The effect size of a correlation is determined by squaring the correlation coefficient, Pearson's r. Therefore, a correlation with an effect size of at least .05 is one with a Pearson's r of at least .22 (either positive or negative).

Note[2]: For these analyses, students were coded as a 1 and teachers were coded as a 2. The response modes for questions in Section 1 of the survey range from 1 (Never) to 5 (Always). Section 2 items (that begin with q2) go from -2 (Strongly Disagree) to +2 (strongly Agree). Therefore, a positive correlation indicates that, for section 1 items, teachers report a higher frequency [of the activity, etc.] than students do, and for section 2 items, that teachers agree more than students do [that they are satisfied, etc.].

Note[2]: The only significant correlations are for q1, q3, q14, q17, and q3q5. The interpretations are summarized here:

q1 = Teachers report that group activities are used more often in their classes than students do, p = .22, effect size = .05

q3 = Students report that most class time is spend in whole class instruction more often than teachers do, p = -.22, effect size = .05

q14 = Teachers report that a variety of instructional materials other than textbooks are used in class more often than students do, p = .29, effect size = .08

q17 = Students report that teachers use multiple choice and true false questions to assess their performance more often than teachers do, p = -.22, effect size = .05

q3q5 = Students agree more than teachers that they like the current daily schedule of classes at their school, p = -.43, effect size = .18

The wording of the survey questions that follow are taken directly from the teacher survey; students' questions were worded the same with only minor changes in the reference-person.

(Continued on next page)

Survey Item	Pearson's *r*	*p* value	Effect size (r^2)
CURRICULUM			
q7 = I am able to cover the material for my classes in the amount of time provided	.06	.00	ns
q2q11 = Generally, I am satisfied with the depth of coverage of material in my classes	.15	.00	ns
INSTRUCTION			
q1 = I use group activities in my classes	.22	.00	.05*
q18 = I use whole class lecture in my classes	-.19	.00	ns
q3 = Most class time is spent in whole class instruction	-.22	.00	.05*
MATERIALS			
q13 = I use textbooks as a primary instructional tool	-.03	.08	ns
q14 = I use a variety of instructional materials other than textbooks in my classes	.29	.00	.08*
q19 = I use worksheets in my classes	-.20	.00	ns
q20 = I require students' to use multiple sources of information to answer project-based problems	.05	.00	ns
ASSESSMENT			
q15 = I use portfolios to assess my students' performance	-.07	.00	ns
q16 = I use essay questions to assess my students' performance	-.02	.23	ns
q17 = I use multiple choice and true false questions to assess my students' performance	-.22	.00	.05*

STUDENT BEHAVIOR			
q2q9 = Generally, I am satisfied with my students' achievement this year as reflected in their grades	.08	.00	ns
q2q18 = Generally, my students are gaining an in-depth understanding of the subject matter	.11	.00	ns
q2q21 = Generally, my students are learning as much as they should be this academic year	.08	.00	ns
SATISFACTION			
q3q5 = I like the current daily schedule of classes at my school	-.43	.00	.18*
q3q6 = Overall, I would rate my experience of teaching/attending high school under the current schedule as [excellent...poor]	-.21	.00	ns
q3q7 = Considering all your impressions about the current schedule at your high school, [I would like to remain in the current schedule/I would like to teach under a different schedule]	-.08	.00	ns

APPENDIX G

TEACHER SURVEY INSTRUMENT

APPENDIX G

TEACHER SURVEY

The purpose of this survey is to collect your perceptions regarding school policies, processes, and practices, especially as they relate to teaching and learning. ALL RESPONSES ARE COMPLETELY CONFIDENTIAL.

SECTION 1

Directions: This set of questions relates to teaching processes and classroom activities at your high school. Please **CIRCLE** the number for each item that best indicates the frequency with which the behaviors occur in ***your*** classes ***this year***. If you do not know or do not have enough information to answer any item, please circle 8 for Don't Know.

		Always	**Most of the Time**	**Some of the Time**	**Seldom**	**Never**	**Don't Know**
1.	I use group activities in my classes	1	2	3	4	5	8
2.	In my classes, time is distributed among whole class instruction, small group work, and individual study	1	2	3	4	5	8
3.	Most class time is spent in whole class instruction	1	2	3	4	5	8
4.	I work with my students in individual study	1	2	3	4	5	8
5.	I am using new instructional approaches this year	1	2	3	4	5	8
6.	My students appear bored in my classes	1	2	3	4	5	8
7.	I am able to cover the material for my classes in the amount of time provided	1	2	3	4	5	8
8.	I experience problems with student attentiveness in my classes	1	2	3	4	5	8
9.	I experience problems with student interest in my classes	1	2	3	4	5	8
10.	I have contact with my students' parents	1	2	3	4	5	8
11.	My students are able to complete their homework in school	1	2	3	4	5	8
12.	I provide feedback on my students' homework	1	2	3	4	5	8
13.	I use textbooks as a primary instructional tool	1	2	3	4	5	8
14.	I use a variety of instructional materials other than textbooks in my classes	1	2	3	4	5	8
15.	I use portfolios to assess my students' performance	1	2	3	4	5	8
16.	I use essay questions to assess my students' performance	1	2	3	4	5	8

		Always	Most of the Time	Some of the Time	Seldom	Never	Don't Know
17.	I use multiple choice and true-false questions to assess my students' performance	1	2	3	4	5	8
18.	I use whole class lecture in my classes. . . .	1	2	3	4	5	8
19.	I use worksheets in my classes.	1	2	3	4	5	8
20.	I require students to use multiple sources of information to answer project-based problems	1	2	3	4	5	8
21.	Students in my class use computer applications for drill and practice, and/or tutorials.	1	2	3	4	5	8
22.	Students in my class use computer applications for problem-solving and/or simulated learning activities	1	2	3	4	5	8
23.	Students in my class use computer data bases	1	2	3	4	5	8
24.	Students in my class use spreadsheets	1	2	3	4	5	8
25.	Students in my class use wordprocessing . .	1	2	3	4	5	8
26.	Students in my class use computer graphics.	1	2	3	4	5	8
27.	Students in my class use telecommunications	1	2	3	4	5	8
28.	I am enthusiastic about my school	1	2	3	4	5	8
29.	I use learning technologies for developing instructional materials, lesson planning, and/or grading	1	2	3	4	5	8
30.	I use rubrics (specific criteria) for scoring student assignments	1	2	3	4	5	8
31.	The in-service workshops provided by my school are helpful	1	2	3	4	5	8
32.	Teachers at my school form informal support/discussion groups to exchange ideas and resources.	1	2	3	4	5	8
33.	My subject-area specialist provides in-service workshops that are helpful for instruction	1	2	3	4	5	8
34.	Teachers at my high school take a team approach to teaching	1	2	3	4	5	8
35.	Teachers at my high school work to integrate instruction across subject areas	1	2	3	4	5	8

SECTION 2

Directions: This set of questions relates to your satisfaction with teaching processes and classroom activities at your high school. Please **CIRCLE** the number that best indicates the level of your agreement with each item. Please answer the items based on your satisfaction with ***your*** classes ***this year***. If you do not know or do not have enough information to answer any item, please circle 8 for Don't Know.

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Don't Know
1.	My general attitude toward my school is positive	1	2	3	4	5	8
2.	Generally, I am satisfied with the amount of homework I assign my students	1	2	3	4	5	8
3.	Generally, I am satisfied with the size of my classes	1	2	3	4	5	8
4.	Generally, I am satisfied with the amount of content covered this school year	1	2	3	4	5	8
5.	Generally, I am satisfied with the level of academic challenge I provide my students	1	2	3	4	5	8
6.	Generally, I am satisfied with my effectiveness as a teacher	1	2	3	4	5	8
7.	Generally, my teaching methods are the same as they have always been	1	2	3	4	5	8
8.	Generally, I believe there has been a positive change in the teaching and learning processes in my classes this year	1	2	3	4	5	8
9.	Generally, I am satisfied with my students' achievement this year as reflected in their grades	1	2	3	4	5	8
10.	Generally, I am satisfied with the quality of what my students learn	1	2	3	4	5	8
11.	Generally, I am satisfied with the depth of coverage of material in my classes	1	2	3	4	5	8
12.	Generally, I am satisfied that my students are learning as much this year as last year	1	2	3	4	5	8
13.	Generally, I am satisfied that my students can apply what they have learned	1	2	3	4	5	8
14.	Generally, I am satisfied with the number of courses available to students	1	2	3	4	5	8
15.	Generally, my students are mastering important concepts	1	2	3	4	5	8
16.	Generally, I am satisfied with the completion rate of my students' work	1	2	3	4	5	8

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Don't Know
17.	In general, my students' attitudes toward school are positive	1	2	3	4	5	8
18.	Generally, my students are gaining an in-depth understanding of the subject matter . .	1	2	3	4	5	8
19.	Generally, I am satisfied with the quality of my relationships with my students	1	2	3	4	5	8
20.	Generally, I am satisfied with the amount of input I have in school decisions that affect teachers	1	2	3	4	5	8
21.	Generally, my students are learning as much as they should be this academic year.	1	2	3	4	5	8
22.	Generally, I know my students' strengths and weaknesses	1	2	3	4	5	8
23.	In general, students' attitudes toward me are negative.	1	2	3	4	5	8
24.	Generally, I wish my students' parents had more contact with me	1	2	3	4	5	8
25.	Generally, I am satisfied with the amount of help I give my students.	1	2	3	4	5	8
26.	Generally, I am satisfied with my workload .	1	2	3	4	5	8
27.	Generally, I am satisfied with the feedback that I provide on students' homework	1	2	3	4	5	8
28.	Generally, the parents of my students are very involved with me	1	2	3	4	5	8
29.	Generally, the parents of my students are very involved with school activities	1	2	3	4	5	8
30.	Generally, I am satisfied with the amount of time I have for lesson planning, correcting, and grading	1	2	3	4	5	8
31.	Generally, I am satisfied with the amount of interaction I have with my colleagues	1	2	3	4	5	8
32.	Generally, I believe attendance in my classes is better this year than three (3) years ago . .	1	2	3	4	5	8
33.	Generally, I have more discipline problems this year than last year	1	2	3	4	5	8
34.	Generally, I am able to cover the approved county curriculum in my classes	1	2	3	4	5	8

SECTION 3

Directions: This set of questions relates to the **CURRENT CLASS SCHEDULE** at your high school. Please check the box next to the appropriate response for each item.

1. Have you taught at a high school (including your current high school) that was *not* on a 7-period schedule?
   - ☐ Yes (my current high school)
   - ☐ Yes (a previous high school)
   - ☐ Yes (my current high school and a previous high school)
   - ☐ No
   - ☐ I don't know

2. When compared to other schedules, the traditional 6-period school day provides the best opportunity for learning.
   - ☐ Strongly agree
   - ☐ Agree
   - ☐ Neutral
   - ☐ Disagree
   - ☐ Strongly disagree

3. The traditional format of approximately 55-minute classes over approximately 180 days is beneficial to quality education.
   - ☐ Strongly agree
   - ☐ Agree
   - ☐ Neutral
   - ☐ Disagree
   - ☐ Strongly disagree

4. There are alternative schedules that are beneficial to quality education.
   - ☐ Strongly agree
   - ☐ Agree
   - ☐ Neutral
   - ☐ Disagree
   - ☐ Strongly disagree

5. I like the current daily schedule of classes at my school.
   - ☐ Strongly agree
   - ☐ Agree
   - ☐ Neutral
   - ☐ Disagree
   - ☐ Strongly disagree

6. Overall, I would rate my experience of teaching under the current schedule as
   - ☐ Excellent
   - ☐ Good
   - ☐ Fair
   - ☐ Poor
   - ☐ Terrible

7. Considering all your impressions about the current schedule at your high school, select a response:
   - ☐ I would like to remain in the current schedule
   - ☐ I would like to teach under a different schedule
   - ☐ I have no opinion
   - ☐ I am undecided

SECTION 4

Directions: This set of questions relates to demographic information. Please check the appropriate response.

1. At which school do you presently work?

____

2. What is your gender?
- ☐ Female
- ☐ Male

3. What is your age?
- ☐ 20-29
- ☐ 30-39
- ☐ 40-49
- ☐ 50-59
- ☐ 60 or over

4. What is your racial or ethnic background?
- ☐ African American
- ☐ Asian
- ☐ Caucasian
- ☐ Hispanic
- ☐ Native American
- ☐ Other

5. What is your highest level of education?
- ☐ High School graduate
- ☐ Bachelors degree
- ☐ Bachelors degree plus teaching certificate
- ☐ Masters degree
- ☐ Doctorate
- ☐ Other (specify________________)

6. Do you work:
- ☐ Full-time
- ☐ Part-time

7. How many years have you been teaching?
- ☐ Less than 1 year
- ☐ 1 - 2 years
- ☐ 3 - 5 years
- ☐ 6 - 10 years
- ☐ 11 -15 years
- ☐ 16 - 20 years
- ☐ More than 20 years

8. Total number of years at present school:
- ☐ Less than 1 year
- ☐ 1 -2 years
- ☐ 3 - 5 years
- ☐ 6 - 10 years
- ☐ 11 -15 years
- ☐ 16 - 20 years
- ☐ More than 20 years

9. What is your present school position?
- ☐ Central office staff
- ☐ Principal or Assistant Principal
- ☐ Teacher
- ☐ Guidance Counselor
- ☐ Librarian
- ☐ Other (paraprofessional/aide; non-instructional support personnel, e.g., bus driver, cafeteria worker, etc.)

____

10. How many periods do you teach a day?
- ☐ None
- ☐ 1 - 2
- ☐ 3 - 4
- ☐ 5 - 6
- ☐ 7 or more

11. How many periods do you teach each week?
- ☐ None
- ☐ 1 - 2
- ☐ 3 - 4
- ☐ 5 - 6
- ☐ 7 or more

12. How many preparations do you have this year?
- ☐ None
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4 or more

13. My average class size is:

☐^{1} 5 - 10 students
☐^{2} 11 - 15 students
☐^{3} 16 - 20 students
☐^{4} 21 - 25 students
☐^{5} 26 students or more

14. How many AP classes do you teach this year?

☐^{1} None
☐^{2} 1
☐^{3} 2
☐^{4} 3
☐^{5} 4 or more

15. How many Honors classes do you teach this year?

☐^{1} None
☐^{2} 1
☐^{3} 2
☐^{4} 3
☐^{5} 4 or more

16. If any of your students have transferred into one or more of your classes this year from another school, how successful were you in accommodating these students?

☐^{1} Extremely successful
☐^{2} Somewhat successful
☐^{3} Not very successful
☐^{4} Extremely unsuccessful
☐^{5} No students have transferred into my classes

17. If you are a classroom teacher, what is your major teaching assignment? (Check only one box)

☐^{1} Art
☐^{2} Computer Education
☐^{3} Driver Education
☐^{4} English/Language Arts/Reading
☐^{5} Drama
☐^{6} Foreign Language
☐^{7} Health
☐^{8} Home Economics
☐^{9} Industrial Arts
☐^{10} Mathematics
☐ Music
    ☐^{11} Band
    ☐^{12} Orchestra
    ☐^{13} Chorus
☐^{14} Physical Education
☐^{15} Science
☐^{16} Social Studies
☐ Special Education
    ☐^{17} Learning Disabled
    ☐^{18} Emotionally Disabled
    ☐^{19} Other (specify exceptionality) ____________________
☐^{20} Vocational Education
☐^{21} Other (specify) ____________________

SECTION 5

Directions: This set of questions consists of "open-ended" questions. Please write your response in the space following each item.

1. What do you see as the general highlights/strengths of the current schedule? (i.e. class size, motivation, enthusiasm, improved grades, relationships with students and teachers . . .)

2. What are your major concerns about the current schedule?

3. Do you feel that the schedule is meeting your needs? In what ways does the schedule meet/not meet your hopes for your future?

4. What do you see as the general highlights/strengths of an alternative schedule? What are your major concerns about an alternative schedule?

5. Has your teaching style and/or curricular emphases changed in the past two (2) years? If so, when and how?

6. Please share any information you think would help your high school improve its schedule.

Thank you for completing this survey!